Prepared for

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2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GULF POWER COMPANY, PLANT SMITH ASH POND

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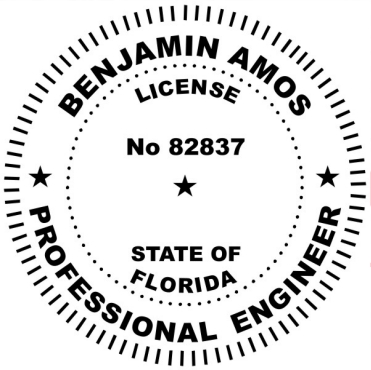
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CERTIFICATION STATEMENT

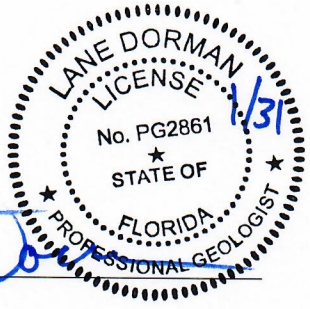
This *2019 Annual Groundwater Monitoring and Corrective Action Report, Gulf Power Company – Plant Smith – Ash Pond* has been prepared in accordance with the requirements of the United States Environmental Protection Agency coal combustion residuals rule (40 Code of Federal Regulations Part 257, Subpart D) under the supervision of a State of Florida licensed Professional Engineer and Professional Geologist with Geosyntec Consultants, Inc.



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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency ("USEPA") coal combustion residuals ("CCR") rule (40 Code of Federal Regulations Part 257, Subpart D) ("CCR Rule"), this *2019 Annual Groundwater Monitoring and Corrective Action Report* documents the CCR groundwater monitoring and remedial evaluation activities completed in 2019 at Gulf Power Company's Plant Lansing Smith Ash Pond. The 165-acre Ash Pond ceased receipt of CCR waste in March 2015 and Gulf Power is preparing to close the CCR unit in accordance with a State of Florida-approved closure plan.

Gulf Power previously installed a CCR groundwater monitoring network to monitor groundwater within the uppermost aquifer in the vicinity of the Ash Pond. Monitoring wells in the CCR groundwater monitoring network are listed below:

- background wells: MW-02, MW-03, and MW-12;
- downgradient wells: MW-06, MW-07, MW-08, MW-09, MW-10, MW-11, MW-13, and MW-14; and
- piezometers: MW-01, MW-04, and MW-05.

As reported previously (Southern Company, 2018), statistical evaluation of CCR groundwater monitoring data collected through October 2017 identified statistically significant increases of certain Appendix III groundwater monitoring constituents above background. In accordance with the CCR Rule, Gulf Power initiated an assessment monitoring program for the Ash Pond in March 2018 (Geosyntec, 2019a) and continued assessment monitoring activities for the Ash Pond in 2019. The 2019 annual assessment monitoring event for all Appendix III and Appendix IV parameters was conducted in March 2019. Subsequent semi-annual events were conducted in May and November 2019 for all Appendix III parameters and Appendix IV parameters detected during the annual event.

In 2019, analytical data from the November 2018 (Geosyntec, 2019a) and May 2019 sampling events were analyzed in accordance with the *Statistical Analysis Plan* (GSC, 2017). Statistical analysis of data collected from November 2019 is ongoing and will be reported in 2021. Statistical analysis of data from the November 2018 and May 2019 sampling events indicated statistically significant increases ("SSIs") of the following Appendix III constituents above background levels: boron, calcium, chloride, sulfate, total dissolved solids, pH.

Statistical analysis of the CCR groundwater monitoring data indicated the following statistically significant levels ("SSLs") of Appendix IV constituents above applicable groundwater protection standards:

SSL Constituent	Semi-annual assessment monitoring event			
	November 2018		May 2019	
Radium 226 and 228 combined (total radium)	MW-06 MW-07 MW-08 MW-09	MW-10 MW-11 MW-13 MW-14	MW-06 MW-07 MW-08 MW-09	MW-10 MW-11 MW-13 MW-14
Arsenic	MW-11		MW-11	
Lithium	MW-13		MW-13	

In accordance with the CCR Rule, Gulf Power previously conducted an alternate source demonstration ("ASD") which documents that the total radium SSLs are from a source other than the Ash Pond (Geosyntec, 2019b).

Gulf Power initiated an assessment of corrective measures ("ACM") in January 2019. The *Assessment of Corrective Measures Report* (Geosyntec, 2019c) was completed in June 2019 following a 60-day extension, as documented in April 2019 (see **Appendix D**). Corrective measures evaluation and remedy selection is ongoing.

In 2019, groundwater samples were collected to evaluate the nature and extent of lithium and arsenic downgradient of the Ash Pond. Delineation activities were completed in 2019 and included sampling of the following delineation locations: MWI-12A, PZ-11D, PZ-14, and PZ-13D.

In 2020, the Ash Pond will remain in assessment monitoring.

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1.0 INTRODUCTION

1.1 Overview

On behalf of Gulf Power Company ("Gulf Power"), Geosyntec Consultants, Inc. ("Geosyntec") has prepared this *2019 Annual Groundwater Monitoring and Corrective Action Report* for Gulf Power's Plant Lansing Smith ("Site") Ash Pond. The purpose of this report is to present a summary of CCR groundwater activities conducted in 2019 in accordance with the annual reporting requirements of the CCR Rule, section 270.90(e).

The Site is located at 4300 Highway 2300, Bay County, Florida, and is situated on approximately 1,560 acres. A Site location map is provided in **Figure 1**. Site topography is relatively flat. The Site is bordered by undeveloped land to the north and east, Alligator Bayou to the west, and North Bay to the south. The Ash Pond is located on the southern portion of the Site near North Bay.

1.2 Regional Geology & Hydrogeologic Setting

According to Pratt (1996), the principal aquifers beneath Bay County include the surficial aquifer system, the intermediate aquifer system, and the Floridan Aquifer System. The surficial aquifer system is the shallowest and is an unconfined system formed by recent terrace sands, the Citronelle Formation, and the upper portions of the Intracoastal Formation in hydraulic connection with these sediments. The general direction of flow is toward the south-southwest.

The intermediate aquifer system in Bay County is semi-confined and consists of the low permeability sediments of the Jackson Bluff and the Intracoastal Formations. Permeable portions of the Intracoastal Formation provide sufficient quantities of water for potable use. Overall, the intermediate aquifer system acts as a confining unit for the underlying Floridan Aquifer System.

CCR unit monitoring wells are screened in the uppermost, water-bearing zone in the undifferentiated quaternary alluvium of the surficial aquifer system. This surficial aquifer system at the Site is considered the uppermost aquifer for groundwater monitoring purposes. Site-specific lithology in the uppermost aquifer consists primarily of sand, silt, and clay mixtures. Groundwater in the surficial aquifer system at the Site is encountered in a laterally-extensive water-bearing unit of predominantly fine sand from approximately 5 to -20 feet ("ft") elevation relative to the North American Vertical Datum of 1988

("NAVD88"). CCR monitoring wells and piezometers were screened in the uppermost aquifer between approximately 2 and -21 ft NAVD88.

1.3 Ash Pond CCR Unit and Groundwater Monitoring System Descriptions

The Ash Pond occupies approximately 165 acres. Fly ash, bottom ash, and other low-volume waste were sluiced to the Ash Pond until March 2015. The Ash Pond has ceased receipt of CCR waste but continues to receive non-CCR wastewater. Gulf Power is preparing to close the Ash Pond in accordance with a State of Florida-approved closure plan.

Pursuant to the CCR Rule, Gulf Power installed a CCR groundwater monitoring system around the Ash Pond to monitor groundwater within the uppermost aquifer at the Site (Southern Company ("SC"), 2018). Upgradient (background) monitoring wells were installed to establish Site-wide background water quality. The downgradient monitoring well network was installed at the waste boundary. The Ash Pond groundwater monitoring network is comprised of the following wells:

- background wells: MW-02, MW-03, and MW-12;
- downgradient wells: MW-06, MW-07, MW-08, MW-09, MW-10, MW-11, MW-13, and MW-14; and
- piezometers: MW-01, MW-04, and MW-05.

In 2019, Gulf Power sampled the following wells/piezometers around the Ash Pond to evaluate the nature and extent of identified statistically significant levels ("SSLs") for Appendix IV constituents: MWI-12A, PZ-11D, PZ-14, and PZ-13D. Results from delineation activities were documented in the *Assessment of Corrective Measures Report* (Geosyntec, 2019c).

Monitoring wells and piezometer details, including installation date, coordinates, elevations, screen interval, and designation, are summarized in **Table 1**. The CCR groundwater monitoring and delineation networks for the Ash Pond are depicted on **Figure 2**.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes CCR groundwater monitoring-related activities performed during 2019. Groundwater samples were collected from monitoring wells in the CCR groundwater monitoring and delineation networks shown on **Figure 2**. A summary of groundwater sampling events completed in 2019 is provided in **Table 2**. Groundwater analytical data associated with these events are summarized in **Table 3**; laboratory analytical reports are included in **Appendix A.**

2.1 Monitoring Well Installation and Maintenance

Monitoring wells and piezometers sampled and/or gauged in 2019 were installed in 2015 (SC, 2018) or 2018 (Geosyntec, 2019c). Piezometer/well construction details are provided in **Table 1** and locations are shown on **Figure 2**. No additional monitoring wells or piezometers were installed in 2019.

2.2 Annual Assessment Monitoring Event

The 2019 annual assessment monitoring event was conducted in March 2019. During the 2019 annual assessment monitoring event, groundwater samples were collected from each monitoring well and analyzed for Appendix III and Appendix IV constituents. In addition, delineation wells MWI-12A, PZ-11D, PZ-14, and PZ-13D were sampled. The following Appendix IV constituents were detected during the annual assessment monitoring event: arsenic, barium, beryllium, chromium, radium 226 and 228 combined (total radium), fluoride, lead, lithium, and molybdenum.

2.3 Semi-Annual Assessment Monitoring Events

The semi-annual events were conducted in May and November 2019. During the 2019 semi-annual assessment monitoring events, groundwater samples were collected from each monitoring and delineation well/piezometer and analyzed for all Appendix III constituents and those Appendix IV constituents detected above laboratory detection limits during the annual assessment monitoring event, with one exception.

Although beryllium was non-detectable at most locations in the annual assessment monitoring event, it was detected at estimated concentrations above the laboratory method detection limit but below the laboratory practical quantitation limit at four locations. The estimated detections ranged from 0.0011 to 0.0023 milligrams per liter

("mg/L"), which is well below the groundwater protection standard ("GWPS") of 0.004 mg/L. Although beryllium was inadvertently excluded from the semi-annual assessment monitoring events analyte list, it will be analyzed as part of the 2020 assessment monitoring program.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following section describes the methods used to conduct CCR groundwater monitoring at the Ash Pond.

3.1 Groundwater Elevation Measurement

Prior to each CCR sampling event, groundwater elevations were recorded from the CCR groundwater monitoring well network. Groundwater elevations recorded during the annual and semi-annual assessment monitoring events are summarized in **Table 4**. Site-wide potentiometric surface elevation contour maps developed using groundwater elevation data from each event are presented on **Figures 3**, **4**, and **5**. As illustrated on the potentiometric figures, regional groundwater generally flows south across the Site and, in the vicinity of the Ash Pond, radially away from the Ash Pond. The groundwater flow patterns observed during the 2019 assessment monitoring events are generally consistent with observations from 2018 (Geosyntec, 2019a).

3.2 Groundwater Sampling

Groundwater samples were collected in general accordance with Florida Department of Environmental Protection ("FDEP") Standard Operation Procedure FS2200 (FDEP, 2017) and the CCR Rule. A SmarTroll™ (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, and dissolved oxygen) during well purging to evaluate stabilization prior to sampling. Turbidity was measured using a portable turbidimeter. Following sample collection, samples were placed in ice-packed coolers and submitted to Eurofins TestAmerica Laboratories, Inc. ("TAL"), in Pensacola, Florida following chain-of-custody protocol. Field sampling data sheets are provided in **Appendix A**.

3.3 Delineation Sampling

To delineate the nature and extent of lithium and cobalt at the Ash Pond, samples were collected during the annual and semi-annual assessment monitoring events as described below:

- To delineate the horizontal and vertical extent of lithium at MW-13, Gulf Power sampled piezometers PZ-14 and PZ-13D, respectively.

- To delineate the horizontal and vertical extent of arsenic at MW-11, Gulf Power sampled from a deep piezometer (PZ-11D) and a shallow well (MWI-12A), respectively.

As documented in the *Assessment of Corrective Measures Report* (Geosyntec, 2019c), sample results from these locations in 2019 completed horizontal and vertical delineation of both arsenic and lithium.

3.4 Laboratory Analyses

Laboratory analyses for groundwater samples collected during the annual and semi-annual assessment monitoring events included both Appendix III and Appendix IV constituents. Applicable analytical methods are provided in laboratory reports in **Appendix A**.

Laboratory analyses were performed by TAL. TAL is accredited by the National Environmental Laboratory Accreditation Program ("NELAP") and maintain a NELAP certification for all parameters analyzed for this project. In addition, TAL is certified to perform analyses by the State of Florida. Groundwater data and chain-of-custody records for the monitoring events are presented in **Appendix A**.

3.5 Quality Assurance & Quality Control Summary

During each sampling event, quality assurance/quality control ("QA/QC") samples including equipment blanks, field blanks, and duplicate samples were collected. Data from these QA/QC samples were evaluated during data validation.

Groundwater quality data in this report were independently validated in accordance with United States Environmental Protection Agency ("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 ("RPDs"), post digestions spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Data validation reports are included in **Appendix A**, except for the November 2019 semi-annual assessment monitoring validation report which will be reported in 2021.

4.0 STATISTICAL ANALYSIS

The following section describes the statistical methods and analyses performed in 2019. Statistical analysis of data collected during the November 2019 semi-annual assessment monitoring event is ongoing and will be reported in 2021.

4.1 Statistical Methods

Statistical analysis of Appendix III and Appendix IV constituents was performed on CCR groundwater monitoring data collected during the November 2018 and May 2019 semi-annual assessment monitoring events in accordance with the *Statistical Analysis Plan* ("SAP") (Groundwater Stats Consulting ("GSC"), 2017). The SAP describes site-specific statistical methods that are used to evaluate CCR groundwater data.

Statistical analysis of Ash Pond CCR groundwater data was performed using the Sanitas™ v.9.6.05 groundwater statistical software. Sanitas™ is a decision support software package that incorporates statistical tests required of Subtitle C and D facilities by USEPA regulations and incorporates methods recommended in the *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance* (USEPA, 2009).

4.1.1 Assessment Monitoring Statistical Method

GWPSs for Appendix IV constituents were established in accordance with the CCR Rule and are presented in **Table 5**.

To identify SSLs of Appendix IV constituents, confidence intervals were constructed for each detected Appendix IV constituent in each downgradient well and compared to the GWPSs (**Table 5**). An SSL was identified only when the entire confidence interval is above the applicable GWPS. Other statistical tests, including time-series plots and trend analyses, were performed in accordance with the SAP. Additional details are presented in the statistical analysis packages provided in **Appendix B** and **Appendix C**.

4.1.2 Appendix III Constituent Statistical Methods

Statistical analysis of Appendix III constituents was performed to evaluate if concentrations were consistent with observed background values. Statistical tests used to evaluate the groundwater monitoring data consisted of interwell prediction limits combined with a 1-of-2 resample strategy for the following Appendix III constituents:

boron, calcium, chloride, fluoride, sulfate, and TDS. Interwell prediction limits pool upgradient well data to establish a background prediction limit for an individual constituent, and the most recent sample from each downgradient well is compared to the background prediction limit for each parameter. Intrawell prediction limits combined with a 1-of-2 resample strategy were used to evaluate pH at each well. Intrawell prediction limits are constructed using historical data within a given well and compare the most recent sample to background levels within the same well. The 1-of-2 resample strategy allows for collection of a verification sample when statistically significant increases ("SSIs") are identified. If the most recent sample exceeded its respective background prediction limit and a verification sample is not collected, a SSI is identified.

4.2 Statistical Analyses Results

Analytical data from the November 2018 and May 2019 semi-annual assessment monitoring events were analyzed in accordance with the SAP. Appendix III statistical analysis was performed to evaluate if constituent concentrations in groundwater were consistent with background levels. Appendix IV constituents were evaluated to assess if groundwater concentrations statistically exceeded the established GWPSs.

4.2.1 Assessment Monitoring Statistical Results

A summary of the Sanitas™ outputs for the November 2018 and May 2019 semi-annual assessment events are provided in **Appendix B** and **Appendix C**, respectively. Based on the statistical analysis of Appendix IV constituents, the following SSLs were identified:

SSL Constituent	Semi-annual assessment monitoring event			
	November 2018		May 2019	
Radium 226 and 228 combined (total radium)	MW-06 MW-07 MW-08 MW-09	MW-10 MW-11 MW-13 MW-14	MW-06 MW-07 MW-08 MW-09	MW-10 MW-11 MW-13 MW-14
Arsenic	MW-11		MW-11	
Lithium	MW-13		MW-13	

Statistical analysis of data collected during the November 2019 semi-annual assessment monitoring event is ongoing and will be reported in 2020.

4.2.2 Appendix III Constituent Statistical Results

Concentrations of the Appendix III constituents from samples collected during the November 2018 and May 2019 semi-annual assessment monitoring events are not consistent with background levels. SSIs were identified for the following constituents: boron, calcium, chloride, sulfate, total dissolved solids, and pH. As such, assessment monitoring will continue in 2020. A summary of Sanitas™ output of statistical analysis are presented in **Appendix B** and **Appendix C**, respectively.

5.0 ALTERNATE SOURCE DEMONSTRATION

In accordance with the CCR Rule, Gulf Power prepared an alternate source demonstration ("ASD") for total radium (Geosyntec, 2019b). The key conclusions of the ASD, which were based on historical findings accepted by FDEP (FDEP, 1997a & b), are briefly summarized below:

- the parent radionuclides that decay into total radium (i.e., uranium and thorium) are naturally-occurring constituents in native sediments at Plant Smith;
- the interaction between saline groundwater and native sediments enriched in uranium and thorium (parent radionuclides to total radium) mobilizes total radium into groundwater; and
- the results of extraction tests conducted on ash from the Ash Pond demonstrate that the Ash Pond was not the source of the SSLs for total radium reported in groundwater.

6.0 CONCLUSIONS AND FUTURE ACTIONS

In accordance with the CCR Rule, Gulf Power continued implementation of assessment monitoring in 2019. Statistical analysis identified SSLs of total radium, lithium, and arsenic downgradient of the Ash Pond. An ASD was prepared for the total radium SSLs which documents that another source caused the total radium SSLs. Therefore, an assessment of correct measures ("ACM") for total radium is not required.

Characterization activities to evaluate the nature and extent of lithium and arsenic SSLs downgradient of the Ash Pond were completed. An ACM was initiated in January 2019 and was completed in June 2019 (Geosyntec, 2019c). Corrective measures evaluation and remedy selection is ongoing, as documented in the December 2019 *Remedy Selection Semi-Annual Progress Report* (Geosyntec, 2019d). Assessment monitoring will continue in 2020.

7.0 REFERENCES

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TABLES

TABLE 1: MONITORING WELL NETWORK SUMMARY
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Well Name	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Designation
CCR Groundwater Monitoring Network								
MW-01	11/11/2015	464368.78	1589789.76	11.09	10.75	1.15	-8.85	Piezometer
MW-02	11/10/2015	464419.66	1592286.78	10.26	13.29	-2.71	-12.71	Background
MW-03	11/10/2015	464322.49	1594277.21	10.98	14.06	-8.94	-18.94	Background
MW-04	11/7/2015	464027.17	1591388.60	12.00	15.05	2.25	-7.75	Piezometer
MW-05	11/4/2015	463987.97	1592784.03	11.18	14.13	-1.97	-11.97	Piezometer
MW-06	11/17/2015	463858.80	1591389.13	24.18	23.82	-5.38	-15.38	Downgradient
MW-07	11/3/2015	463856.65	1592774.97	21.72	21.42	-7.88	-17.88	Downgradient
MW-08	11/17/2015	461649.15	1590479.94	21.33	24.31	-8.39	-18.39	Downgradient
MW-09	11/17/2015	460663.62	1590695.95	12.49	15.37	-6.73	-16.73	Downgradient
MW-10	11/20/2015	461234.34	1592098.52	10.94	13.93	-8.67	-18.67	Downgradient
MW-11	11/21/2015	462157.18	1593298.86	13.42	16.51	-6.49	-16.49	Downgradient
MW-12	11/11/2015	462362.00	1589322.96	8.21	11.14	-10.56	-20.56	Background
MW-13	11/11/2015	462676.94	1590589.33	23.53	26.54	-6.36	-16.36	Downgradient
MW-14	11/10/2015	460892.89	1590173.47	22.11	24.95	-5.69	-15.69	Downgradient
Groundwater Monitoring Location for Delineation								
MWI-12A	Unknown	461669.34	1593482.68	Unknown	9.82	4.32	-5.68	Delineation Well
PZ-11D	12/5/2018	462128.91	1593287.38	10.55	13.51	-34.45	-44.45	Delineation Piezometer
PZ-14	12/4/2018	462584.13	1590334.98	10.08	9.87	-4.92	-14.92	Delineation Piezometer
PZ-13D	12/6/2018	462700.23	1590586.00	23.54	26.44	-20.46	-30.46	Delineation Piezometer

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum on 1988.

TABLE 2: SUMMARY OF 2019 GROUNDWATER SAMPLING EVENTS
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Well Name	2019 Annual Assessment Monitoring Event	2019 Semi-Annual Assessment Monitoring Event 1	2019 Semi-Annual Assessment Monitoring Event 2
MW-02	3/11/2019	5/29/2019	11/18/2019
MW-03	3/11/2019	5/29/2019	11/18/2019
MW-06	3/12/2019	5/30/2019	11/18/2019
MW-07	3/12/2019	5/30/2019	11/19/2019
MW-08	3/11/2019	5/30/2019	11/19/2019
MW-09	3/11/2019	5/30/2019	11/19/2019
MW-10	3/11/2019	5/30/2019	11/18/2019
MW-11	3/11/2019	5/29/2019	11/18/2019
MW-12	3/11/2019	5/29/2019	11/18/2019
MW-13	3/12/2019	5/30/2019	11/19/2019
MW-14	3/11/2019	5/30/2019	11/19/2019
MWI-12A	3/12/2019	5/29/2019	11/19/2019
PZ-11D	3/11/2019	5/29/2019	11/19/2019
PZ-14	3/12/2019	5/30/2019	11/19/2019
PZ-13D	3/12/2019	5/30/2019	11/19/2019

Notes:

1. Assessment indicates a sampling event conducted during assessment monitoring, and includes groundwater samples analyzed for Appendix III and Appendix IV parameters.

TABLE 3: SUMMARY OF 2019 GROUNDWATER LABORATORY ANALYTICAL DATA
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Monitoring Well	Well Designation	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Combined Radium (pCi/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	pH (SU)	Selenium (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Thallium (mg/L)
Annual Assessment Monitoring Event																							
MW-02	Background	3/11/2019	0.0010 U	0.00046 U	0.011	0.00034 U	0.021 U	0.00034 U	16	12	0.0018	0.00040 U	0.777	0.080 I	0.00035 U	0.0024 I	0.000070 U	0.0020 U	6.03	0.00071 U	5.2	72	0.000085 U
MW-03	Background	3/11/2019	0.0010 U	0.00046 U	0.018	0.00034 U	0.021 U	0.00034 U	1.9	13	0.0020 I	0.00040 U	1.24	0.040 I	0.00035 U	0.013	0.000070 U	0.0020 U	4.97	0.00071 U	1.4 U	12	0.000085 U
MW-12	Background	3/11/2019	0.0010 U	0.00046 U	0.011	0.00034 U	0.021 U	0.00034 U	31	190	0.0011 U	0.00040 U	1.93	0.12	0.00035 U	0.014	0.000070 U	0.0020 U	6.15	0.00071 U	1.5 I	440	0.000085 U
MW-06	Downgradient	3/12/2019	0.0010 U	0.00079 I	0.060	0.0012 I	9.7	0.00034 U	260	2900	0.0011 U	0.00040 U	25.9	0.050 I	0.00035 U	0.017	0.000070 U	0.0020 U	5.23	0.00071 U	510	5400	0.000085 U
MW-07	Downgradient	3/12/2019	0.0010 U	0.0012 I	0.15	0.00034 U	3.0	0.00034 U	430	3300	0.0035	0.00040 U	46.3	0.032 U	0.00035 U	0.002 I	0.000070 U	0.0020 U	6.14	0.00071 U	870	6800	0.000085 U
MW-08	Downgradient	3/11/2019	0.0010 U	0.0017	0.058	0.0011 I	14	0.00034 U	500	3300	0.0011 U	0.00040 U	32.9	0.032 U	0.00035 U	0.0075	0.000070 U	0.0020 U	4.44	0.00071 U	920	7300	0.000085 U
MW-09	Downgradient	3/11/2019	0.0010 U	0.0046	0.087	0.00034 U	9.5	0.00034 U	240	2200	0.0011 U	0.00040 U	10.2	0.040 I	0.00035 U	0.0023 I	0.000070 U	0.0056 I	6.69	0.00071 U	560	5200	0.000085 U
MW-10	Downgradient	3/11/2019	0.0010 U	0.0026	0.097	0.00034 U	10	0.00034 U	480	2700	0.0030	0.00040 U	18.3	0.032 U	0.0093	0.0051	0.000070 U	0.0020 U	5.24	0.00071 U	860	6400	0.000085 U
MW-11	Downgradient	3/11/2019	0.0010 U	0.011	0.16	0.0013 I	3.6	0.00034 U	200	2900	0.0033	0.00040 U	36.5	0.050 I	0.00035 U	0.0058	0.000070 U	0.0082 I	6.24	0.00071 U	310	6000	0.000085 U
MW-13	Downgradient	3/12/2019	0.0010 U	0.0011 I	0.081	0.00034 U	14	0.00034 U	660	4500	0.0011 U	0.00040 U	11.7	0.24	0.00035 U	0.19	0.000070 U	0.017	6.96	0.00071 U	880	9600	0.000085 U
MW-14	Downgradient	3/11/2019	0.0010 U	0.0049	0.057	0.00034 U	14	0.00034 U	270	2200	0.0011 U	0.00040 U	4.99	0.11	0.00035 U	0.002 I	0.000070 U	0.017	6.92	0.00071 U	640	45000 L	0.000085 U
MWI-12A	Delineation	3/12/2019	--	0.00048 I	0.052	0.00034 U	1.7	--	38	140	0.0012 I	0.00040 U	11.3	0.060 I	--	0.0069	--	0.021	6.04	0.00071 U	75	430	--
PZ-11D	Delineation	3/11/2019	--	0.00046 U	0.098	0.00034 U	0.67	--	220	1700	0.0011 U	0.00040 U	7.44	0.20	--	0.026	--	0.0020 U	6.79	0.00071 U	170	3900	--
PZ-14	Delineation	3/12/2019	--	0.0058	0.15	0.00034 U	13	--	700	3800	0.0011 U	0.00040 U	20.1	0.43	--	0.0011 I	--	0.0020 U	6.38	0.00071 U	870	8500	--
PZ-13D	Delineation	3/12/2019	--	0.0010 I	0.050	0.0023 I	13	--	860	4500	0.0011 U	0.00040 U	31.9	0.032 U	--	0.019	--	0.0020 U	4.52	0.00071 U	1100	8100	--
Semi-Annual Assessment Monitoring Event 1																							
MW-02	Background	5/29/2019	--	0.00046 U	0.016	--	0.021 U	--	35	13	0.0020 I	--	1.16	0.13	0.00035 U	0.0012 I	--	0.0020 U	6.29	--	4.3 I	140	--
MW-03	Background	5/29/2019	--	0.00046 U	0.021	--	0.021 U	--	2.1	13	0.0011 U	--	1.13	0.040 I	0.00035 U	0.011	--	0.0020 U	4.73	--	1.4 U	110	--
MW-12	Background	5/29/2019	--	0.00046 U	0.013	--	0.024 I	--	37	190	0.0011 U	--	-0.0564 U	0.13	0.00035 U	0.013	--	0.0020 U	6.62	--	3 I	540	--
MW-06	Downgradient	5/30/2019	--	0.00046 U	0.065	--	9.0	--	250	2800	0.0011 U	--	24.7	0.050 I	0.00035 U	0.012	--	0.0020 U	5.38	--	460	5800	--
MW-07	Downgradient	5/30/2019	--	0.00099 I	0.16	--	3.2	--	440	3400	0.0012 I	--	49.7	0.032 U	0.00035 U	0.0020 I	--	0.0033 I	6.15	--	870	8600	--
MW-08	Downgradient	5/30/2019	--	0.0015	0.06	--	14	--	470	3700	0.0011 U	--	29.6	0.032 U	0.00035 U	0.0089	--	0.0020 U	4.51	--	940	7700	--
MW-09	Downgradient	5/30/2019	--	0.0038	0.08	--	10	--	230	2100	0.0011 U	--	11	0.050 I	0.00035 U	0.0028 I	--	0.0023 I	6.58	--	550	4600	--
MW-10	Downgradient	5/30/2019	--	0.0016	0.096	--	10	--	440	2600	0.0011 U	--	17.1	0.050 I	0.00035 U	0.0051	--	0.0020 U	5.06	--	800	5900	--
MW-11	Downgradient	5/29/2019	--	0.014	0.17	--	4.1	--	190	2900	0.0028	--	37.2	0.032 U	0.0013	0.0021 I	--	0.0086 I	6.4	--	350	5600	--
MW-13	Downgradient	5/30/2019	--	0.001 I	0.077	--	0.28	--	640	4300	0.0011 U	--	11	0.040 I	0.00035 U	0.18	--	0.010 I	6.96	--	830	9200	--
MW-14	Downgradient	5/30/2019	--	0.0055	0.051	--	14	--	230	2000	0.0011 U	--	3.89	0.090 I	0.00035 U	0.0026 I	--	0.017	6.96	--	550	4300	--
MWI-12A	Delineation	5/29/2019	--	0.0041	0.14	--	1.7	--	49	310	0.0016 I	--	30.8	0.070 I	0.00035 U J3	0.0066	--	0.016	5.06	--	100	770	--
PZ-11D	Delineation	5/29/2019	--	0.00046 U	0.098	--	0.61	--	240	1800	0.0011 U	--	6.12	0.19	0.00035 U J3	0.027	--	0.0020 U	6.75	--	160	4200	--
PZ-14	Delineation	5/30/2019	--	0.005	0.14	--	13	--	630	3700	0.0011 U	--	26.4	0.26	0.00035 U J3	0.0011 U	--	0.0020 U	6.09	--	870	8500	--
PZ-13D	Delineation	5/30/2019	--	0.00057 I	0.052	--	15	--	810	4200	0.0011 U	--	27.3	0.040 I	0.00035 U J3	0.018	--	0.0020 U	4.62	--	1100	10000	--
Semi-Annual Assessment Monitoring Event 2																							
MW-02	Background	11/18/2019	--	0.00039 U	0.018	--	0.036 V	--	44	12	0.0024 I	--	1.31	0.17	0.00029 U	0.0032	--	0.0045 U	6.59	--	2.8 I	170	--
MW-03	Background	11/18/2019	--	0.00039 U	0.021	--	0.0094 IV	--	1.9	14	0.0010 U	--	1.52	0.032 U	0.00029 U	0.011	--	0.0045 U	4.82	--	1.4 U	52	--
MW-12	Background	11/18/2019	--	0.00039 U	0.013	--	0.075	--	30	210	0.0010 U	--	2.25	0.14	0.00029 U	0.015	--	0.0045 U	6.14	--	1.4 U	560	--
MW-06	Downgradient	11/18/2019	--	0.0031	0.060	--	9.0 J3	--	240	3000	0.0010 U	--	24.8	0.050 I	0.00029 U	0.028 I	--	0.0045 U	5.49	--	350	6000	--
MW-07	Downgradient	11/19/2019	--	0.0051	0.12	--	4.3 J3	--	360	3400	0.0016 I	--	42.0	0.032 U	0.00029 U	0.019 U	--	0.0068 I	6.26	--	650	8200	--
MW-08	Downgradient	11/19/2019	--	0.0058	0.060	--	14 J3	--	530	3300	0.0010 U	--	32.0	0.032 U	0.00029 U	0.019	--	0.0045 U	4.55	--	720	9800	--
MW-09	Downgradient	11/19/2019	--	0.0050	0.081	--	11 J3	--	270	2200	0.0010 U	--	12.9	0.040	0.00029 U	0.019 U	--	0.0045 U	6.58	--	1100 I	5300	--
MW-10	Downgradient	11/18/2019	--	0.0042	0.097	--	11 J3	--	460	2400	0.0010 U	--	16.4	0.040 I	0.00029 U	0.019 U	--	0.0045 U	5.28	--	660	6300	--
MW-11	Downgradient	11/18/2019	--	0.012	0.17	--	4.7 J3	--	220	3200	0.0020 I	--	46.4	0.032 U	0.00029 U	0.019 U	--	0.022	6.41	--	340	6900	--
MW-13	Downgradient	11/19/2019	--	0.0071	0.080	--	16 J3	--	660	4600	0.0010 U	--	11.6	0.040 I	0.00029 U	0.16	--	0.019	6.92	--	670	8500	--
MW-14	Downgradient	11/19/2019	--	0.0086	0.048	--	14 J3	--	230	1800	0.0010 U	--	4.31	0.10	0.00029 U	0.019 U	--	0.022	7.03	--	65 I	4200	--
MWI-12A	Delineation	11/19/2019	--	0.0016	0.37	--	9.7	--	160	1300	0.0016	--	85.5	0.10	0.000081 I	0.011	--	0.0014 I	4.81	--	290	2700	--
PZ-11D	Delineation	11/19/2019	--	0.0019	0.091	--	1.3	--	180	1600	0.0010	--	5.97	0.20	0.000058 U	0.033	--	0.00097 I	6.84	--	150	3700	--
PZ-14	Delineation	11/19/2019	--	0.013	0.15	--	16	--	660	3600	0.00087	--	20.1	0.54	0.000058 U	0.00038 U	--	0.0021 I	6.39	--	760	9200	--
PZ-13D	Delineation	11/19/2019	--	0.0047	0.056	--	14	--	980	4300	0.00094	--	27.9	0.032 U	0.000058 U	0.022	--	0.00090 U	4.64	--	820	11000	--

Notes:

1. mg/L indicates milligrams per liter, pCi/L indicates picocuries per liter, SU indicates standard units.
2. TDS indicates Total Dissolved Solids.
3. -- indicates that the constituent was not analyzed during the specified assessment monitoring event.
4. "U" indicates analyte was analyzed but not detected.
5. "V" indicates that the analyte was detected at or above the method detection limit in both the sample and associated method blank and the value of 10 times the blank was equal to or greater than the associated sample value.
6. "I" indicates that the reported value is between laboratory method detection limit and laboratory practical quantitation limit.
7. "J3" indicates an estimated value; value may not be accurate. Spike recovery or relative percent difference outside of criteria.
8. Data validation was performed on the annual assessment monitoring event and the first semi-annual assessment monitoring event. Data validation is ongoing for the second semi-annual assessment monitoring event. Data validation flags are not included in Table 3. Data validation reports are included in Appendix A.

TABLE 4: SUMMARY OF 2019 GROUNDWATER ELEVATIONS
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-01	464368.78	1589789.76	10.75	3/4/2019	4.82	5.93
MW-02	464419.66	1592286.78	13.29	3/4/2019	3.37	9.92
MW-03	464322.49	1594277.21	14.06	3/4/2019	5.46	8.60
MW-04	464027.17	1591388.60	15.05	3/4/2019	6.60	8.45
MW-05	463987.97	1592784.03	14.13	3/4/2019	5.50	8.63
MW-06	463858.80	1591389.13	23.82	3/4/2019	13.92	9.90
MW-07	463856.65	1592774.97	21.42	3/4/2019	11.85	9.57
MW-08	461649.15	1590479.94	24.31	3/4/2019	18.18	6.13
MW-09	460663.62	1590695.95	15.37	3/4/2019	10.68	4.69
MW-10	461234.34	1592098.52	13.93	3/4/2019	8.60	5.33
MW-11	462157.18	1593298.86	16.51	3/4/2019	9.20	7.31
MW-12	462362.00	1589322.96	11.14	3/4/2019	10.05	1.09
MW-13	462676.94	1590589.33	26.54	3/4/2019	16.80	9.74
MW-14	460892.89	1590173.47	24.95	3/4/2019	22.15	2.80
MWI-12A	461669.34	1593482.68	9.82	3/4/2019	NM	NM
PZ-11D	462128.91	1593287.38	13.51	3/4/2019	6.93	6.58
PZ-14	462584.13	1590334.98	9.87	3/4/2019	2.85	7.02
PZ-13D	462700.23	1590586.00	26.44	3/4/2019	18.02	8.42

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.
4. NM indicates the water level was not measured.

TABLE 4: SUMMARY OF 2019 GROUNDWATER ELEVATIONS
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-01	464368.78	1589789.76	10.75	5/29/2019	5.42	5.33
MW-02	464419.66	1592286.78	13.29	5/29/2019	6.13	7.16
MW-03	464322.49	1594277.21	14.06	5/29/2019	6.89	7.17
MW-04	464027.17	1591388.60	15.05	5/29/2019	7.54	7.51
MW-05	463987.97	1592784.03	14.13	5/29/2019	6.55	7.58
MW-06	463858.80	1591389.13	23.82	5/29/2019	14.15	9.67
MW-07	463856.65	1592774.97	21.42	5/29/2019	13.39	8.03
MW-08	461649.15	1590479.94	24.31	5/29/2019	19.72	4.59
MW-09	460663.62	1590695.95	15.37	5/29/2019	13.18	2.19
MW-10	461234.34	1592098.52	13.93	5/29/2019	10.83	3.10
MW-11	462157.18	1593298.86	16.51	5/29/2019	10.20	6.31
MW-12	462362.00	1589322.96	11.14	5/29/2019	9.69	1.45
MW-13	462676.94	1590589.33	26.54	5/29/2019	18.93	7.61
MW-14	460892.89	1590173.47	24.95	5/29/2019	22.81	2.14
MWI-12A	461669.34	1593482.68	9.82	5/29/2019	8.59	1.23
PZ-11D	462128.91	1593287.38	13.51	5/29/2019	8.72	4.79
PZ-14	462584.13	1590334.98	9.87	5/29/2019	5.26	4.61
PZ-13D	462700.23	1590586.00	26.44	5/29/2019	19.70	6.74

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.

TABLE 4: SUMMARY OF 2019 GROUNDWATER ELEVATIONS
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-01	464368.78	1589789.76	10.75	11/18/2019	5.18	5.57
MW-02	464419.66	1592286.78	13.29	11/18/2019	6.15	7.14
MW-03	464322.49	1594277.21	14.06	11/18/2019	7.25	6.81
MW-04	464027.17	1591388.60	15.05	11/18/2019	7.21	7.84
MW-05	463987.97	1592784.03	14.13	11/18/2019	6.32	7.81
MW-06	463858.80	1591389.13	23.82	11/18/2019	13.85	9.97
MW-07	463856.65	1592774.97	21.42	11/18/2019	13.36	8.06
MW-08	461649.15	1590479.94	24.31	11/18/2019	18.90	5.41
MW-09	460663.62	1590695.95	15.37	11/18/2019	12.43	2.94
MW-10	461234.34	1592098.52	13.93	11/18/2019	10.15	3.78
MW-11	462157.18	1593298.86	16.51	11/18/2019	9.55	6.96
MW-12	462362.00	1589322.96	11.14	11/18/2019	9.90	1.24
MW-13	462676.94	1590589.33	26.54	11/18/2019	16.72	9.82
MW-14	460892.89	1590173.47	24.95	11/18/2019	22.95	2.00
MWI-12A	461669.34	1593482.68	9.82	11/18/2019	7.30	2.52
PZ-11D	462128.91	1593287.38	13.51	11/18/2019	8.54	4.97
PZ-14	462584.13	1590334.98	9.87	11/18/2019	2.55	7.32
PZ-13D	462700.23	1590586.00	26.44	11/18/2019	18.27	8.17

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.

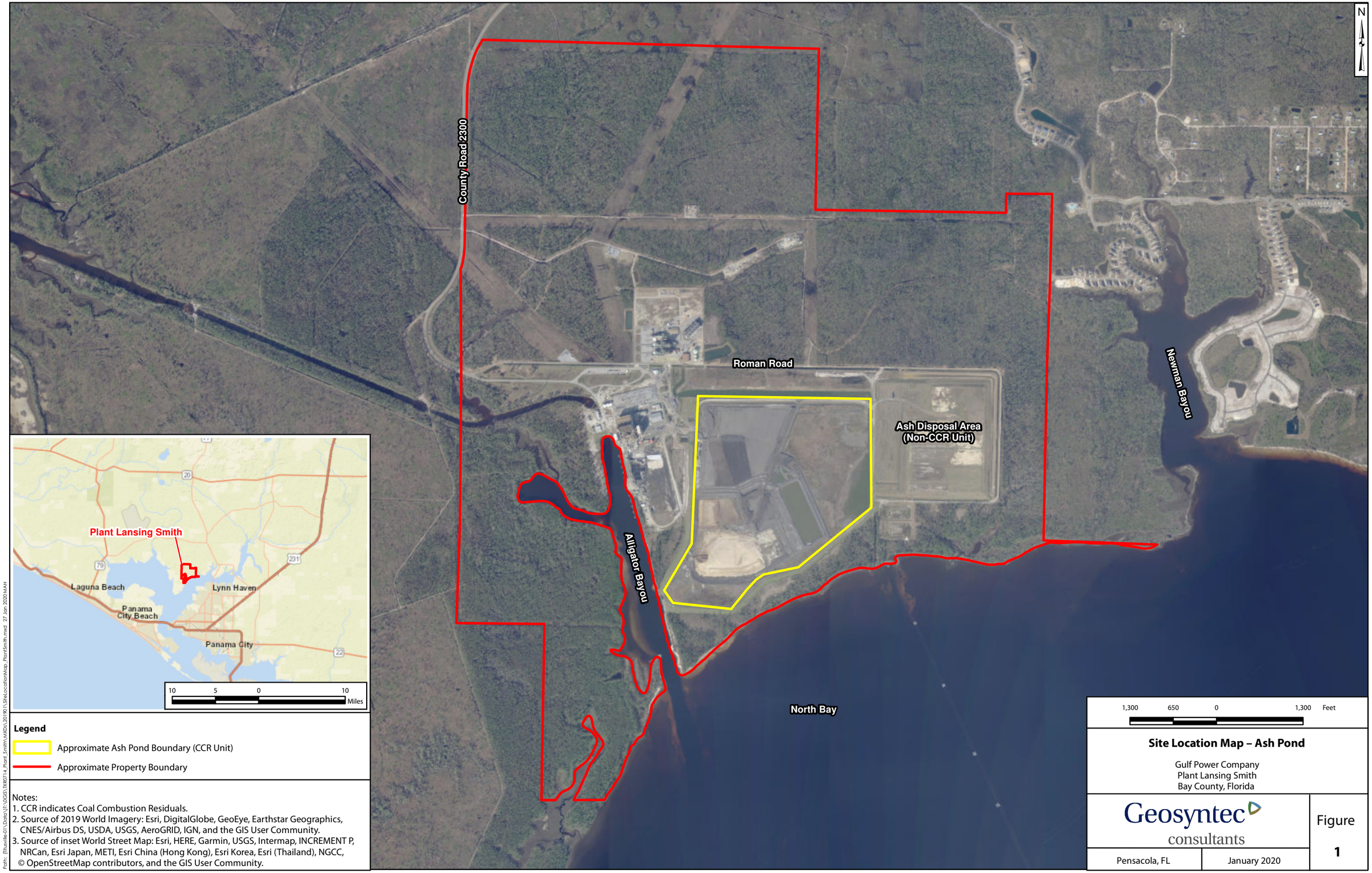
TABLE 5: SUMMARY OF BACKGROUND LIMITS AND GROUNDWATER PROTECTION STANDARDS
Plant Smith - Ash Pond, Gulf Power Company, Bay County, Florida

Analyte	Units[1]	USEPA MCL or RSL[2]	Statistically Derived Upper Tolerance Limit from October 2018 data	Statistically Derived Upper Tolerance Limit from June 2019 data	Groundwater Protection Standard (GWPS)[4, 5]
Antimony	mg/L	0.006	0.003	0.003	0.006
Arsenic	mg/L	0.01	0.001	0.001	0.01
Barium	mg/L	2	0.030	0.029	2
Beryllium	mg/L	0.004	0.003	0.003	0.004
Cadmium	mg/L	0.005	0.003	0.003	0.005
Chromium	mg/L	0.1	0.012	0.012	0.1
Cobalt[3]	mg/L	0.006	0.003	0.003	0.006
Fluoride	mg/L	4	0.280	0.280	4
Lead[3]	mg/L	0.015	0.001	0.001	0.015
Lithium[3]	mg/L	0.04	0.025	0.020	0.04
Mercury	mg/L	0.002	0.0002	0.0002	0.002
Molybdenum[3]	mg/L	0.1	0.015	0.015	0.1
Selenium	mg/L	0.05	0.001	0.001	0.05
Thallium	mg/L	0.002	0.0005	0.0005	0.002
Combined Radium-226/228	pCi/L	5	3.958	3.866	5

Notes:

1. mg/L indicates milligrams per liter; pCi/L indicates picocuries per liter.
2. USEPA: United Stated Environmental Protection Agency; MCL: Maximum Contaminant Level; RSL : Regional Screening Levels.
3. The GWPS was established in the CCR Rule Ammendment dated July 30, 2018.
4. GWPS selected as the higher of EPA MCL or RSL and Statistically Derived Upper Tolerance Limit.
5. GWPS remains the same for all analytes from 2018 to 2019.

FIGURES



Legend

- Approximate Ash Pond Boundary (CCR Unit)
- Approximate Property Boundary

Notes:
1. CCR indicates Coal Combustion Residuals.
2. Source of 2019 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.
3. Source of inset World Street Map: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community.

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Site Location Map – Ash Pond

Gulf Power Company
Plant Lansing Smith
Bay County, Florida

Geosyntec consultants

Pensacola, FL | January 2020

Figure 1



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Legend

- Downgradient Well Location
- Background Well Location
- Piezometer Location
- Shallow Delineation Piezometer and Well
- Deep Delineation Piezometer
- Inferred Groundwater Elevation Contour (ft NAVD88)
- Approximate Property Boundary
- Approximate Ash Pond Boundary (CCR Unit)
- [6.13] Groundwater Elevation (ft NAVD88)

Notes:
1. * indicates groundwater elevation not used for contouring.
2. NM indicates not measured.
3. CCR indicates Coal Combustion Residuals.
4. Water level measurements collected on 4 March 2019.
5. ft NAVD88 indicates feet North American Vertical Datum of 1988.
6. Source of 2019 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

500 250 0 500 Feet

Potentiometric Surface Contour Map
March 4, 2019
Plant Lansing Smith

Gulf Power Company
Plant Lansing Smith
Bay County, Florida

Geosyntec consultants

Pensacola, FL | January 2020

Figure **3**

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Legend

- Downgradient Well Location
- Background Well Location
- Piezometer Location
- Shallow Delineation Piezometer and Well
- Deep Delineation Piezometer
- Inferred Groundwater Elevation Contour (ft NAVD88)
- Approximate Property Boundary
- Approximate Ash Pond Boundary (CCR Unit)
- [6.31] Groundwater Elevation (ft NAVD88)

Notes:
1. * indicates groundwater elevation not used for contouring.
2. CCR indicates Coal Combustion Residuals.
3. Water level measurements collected on 29 May 2019.
4. ft NAVD88 indicates feet North American Vertical Datum of 1988.
5. Source of 2019 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Potentiometric Surface Contour Map
May 29, 2019
Plant Lansing Smith

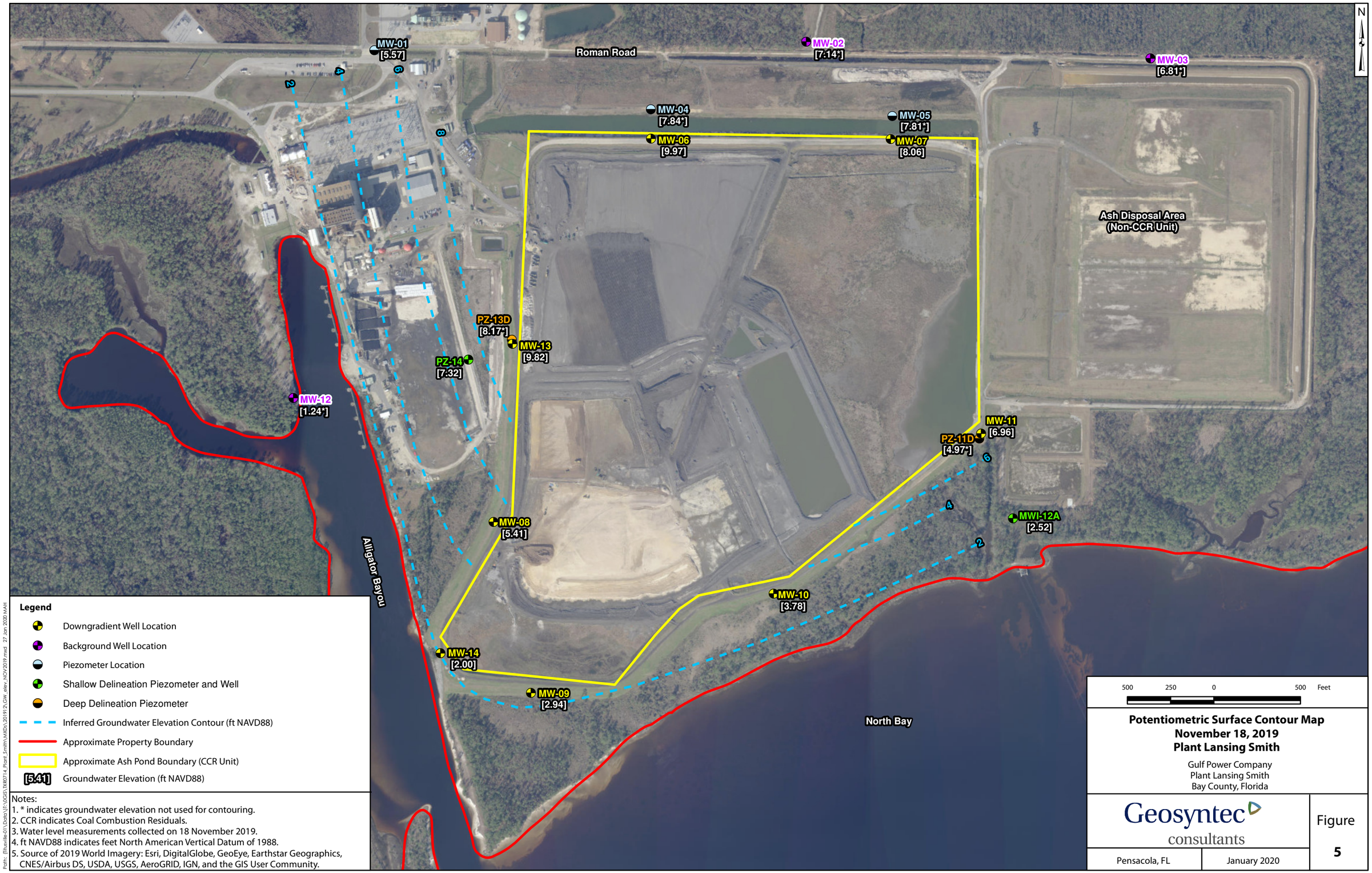
Gulf Power Company
Plant Lansing Smith
Bay County, Florida

Geosyntec consultants

Pensacola, FL | January 2020

Figure 4

Path: I:\fnlsville-01\Data\VT\GIS\LPR0714_Plant_Smith\MXDs\2019\2\GW_elev_MAY2019.mxd 27 Jan 2020 MAH



Legend

- Downgradient Well Location
- Background Well Location
- Piezometer Location
- Shallow Delineation Piezometer and Well
- Deep Delineation Piezometer
- Inferred Groundwater Elevation Contour (ft NAVD88)
- Approximate Property Boundary
- Approximate Ash Pond Boundary (CCR Unit)
- [5.41] Groundwater Elevation (ft NAVD88)

Notes:
1. * indicates groundwater elevation not used for contouring.
2. CCR indicates Coal Combustion Residuals.
3. Water level measurements collected on 18 November 2019.
4. ft NAVD88 indicates feet North American Vertical Datum of 1988.
5. Source of 2019 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Potentiometric Surface Contour Map
November 18, 2019
Plant Lansing Smith

Gulf Power Company
Plant Lansing Smith
Bay County, Florida

Geosyntec consultants

Pensacola, FL | January 2020

Figure **5**

Path: \\Tallville-01\Data\VT\GIS\LPR0714_Plant_Smith\MXDs\2019\2v_GW_elev_NOV2019.mxd 27 Jan 2020 MAH

APPENDIX A

Laboratory Analytical, Field Sampling Reports, and Data Validation Reports

Geosyntec consultants

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Memorandum

Date: January 8, 2019

To: Lane Dorman

From: Kristoffer Henderson

CC: J. Caprio

Subject: Stage 2A Data Validations - Level II Data Deliverables – TestAmerica Job IDs 400-162396-1, 400-162396-3, 400-162396-5, 400-162396-7, 400-162396-9, 400-162396-11 and 400-162396-13

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of fourteen aqueous samples, two field duplicate samples and one field blank, collected 19-20 November 2018, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E
- Field pH

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-162396-1	MW-2
400-162396-2	MW-3
400-162396-3	MW-6
400-162396-4	MW-7
400-162396-5	MW-8
400-162396-6	MW-9
400-162396-7	MW-10
400-162396-8	MW-12
400-162396-9	DUP-01

Laboratory ID	Client ID
400-162396-10	DUP-02
400-162396-11	FB-01
400-162396-12	MW-11
400-162396-13	MW-11A
400-162396-14	MW-13
400-162396-15	MW-13A
400-162396-16	MW-14
400-162396-17	MW-14A

The samples were received within 0-6ºC. No sample preservation issues were noted by the laboratory.

1.0 METALS

The samples were analyzed by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample

- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.1.2 Analysis Anomaly

The recoveries of arsenic, boron, barium, beryllium, chromium, cobalt, selenium and lithium in a bracketing continuing calibration verification (CCV) in batch 421723 were high and outside the laboratory specified acceptance criteria. Since these metals were not detected in the associated sample, no qualifications were applied to the data.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 421465). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria, with the following exception.

1.6 Equipment Blank

Equipment blanks were not collected with the sample sets.

1.7 Field Blank

One field blank was collected with the sample sets, FB-01. Metals were not detected in the field blank above the MDLs.

1.8 Field Duplicate

Two field duplicate samples were collected with the sample sets, DUP-01 and DUP-02. Acceptable precision (RPD $\leq$ 20% or difference < RL) was demonstrated between the field duplicates and the original samples MW-12 and MW-09, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverables (EDDs) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

2.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The wet chemistry data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

2.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 420775 and 420777, chloride batches 421176 and 421838, sulfate batches 420988 and 421795, fluoride batches 421135 and 421180). The wet chemistry parameters were not detected in the method blanks above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride and sulfate using sample MW-3 and fluoride using sample DUP-01. The recovery and RPD results were within the laboratory specified acceptance criteria.

Batch MS/MSD pair were also reported for fluoride, sulfate and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Laboratory Duplicate

A sample set specific laboratory duplicate was reported for TDS using sample MW-2. The RPD result was within the laboratory and SOP specified acceptance criteria, with the following exception.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

Equipment blanks were not collected with the sample sets.

2.8 Field Blank

One field blank was collected with the sample set, FB-01. The wet chemistry parameters were not detected in the field blank above the MDLs.

2.9 Field Duplicate

Two field duplicate samples were collected with the sample sets, DUP-01 and DUP-02. Acceptable precision (RPD $\leq$ 20% or difference < RL) was demonstrated between the field duplicates and the original samples MW-12 and MW-09, respectively.

2.10 Sensitivity

The samples were reported to the MDLs. No elevated nondetect results were reported.

2.11 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date: January 28, 2019

To: Lane Dorman

From: Kristoffer Henderson

CC: J. Caprio

Subject: Stage 2A Data Validations - Level II Data Deliverables – TestAmerica Job IDs 400-162396-2, 400-162396-4, 400-162396-6, 400-162396-8, 400-162396-10, 400-162396-12 and 400-162396-14

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of fourteen aqueous samples, two field duplicate samples and one field blank, collected 19-20 November 2018, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-162396-1	MW-2
400-162396-2	MW-3
400-162396-3	MW-6
400-162396-4	MW-7
400-162396-5	MW-8
400-162396-6	MW-9
400-162396-7	MW-10
400-162396-8	MW-12
400-162396-9	DUP-01

Laboratory ID	Client ID
400-162396-10	DUP-02
400-162396-11	FB-01
400-162396-12	MW-11
400-162396-13	MW-11A
400-162396-14	MW-13
400-162396-15	MW-13A
400-162396-16	MW-14
400-162396-17	MW-14A

The samples were received within 0-6°C. No sample preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Carriers
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate

- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-226 data (batch 403442) and one method blank was reported for the radium-228 data (batch 403456). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Batch MS/MSD pairs were not reported for radium-226 and radium-228.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported for radium-226 and one LCS was reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported for Ra-226 and one batch laboratory duplicate was reported for Ra-228 Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Equipment Blank

Equipment blanks were not collected with the sample set.

1.9 Field Blank

One field blank was collected with the sample sets, FB-01. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs.

1.10 Field Duplicate

Two field duplicate samples were collected with the sample sets, DUP-01 and DUP-02. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicates and the original samples MW-12 and MW-09, respectively.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated nondetect results were reported.

1.12 Electronic Data Deliverables (EDDs) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

---

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Product Name: Low-Flow System

Date: 2019-03-11 08:45:18

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	28 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	21 ft

Well Information:		Pumping Information:	
Well ID	MW-02	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2149758 L
Well Total Depth	26 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	25 in
Depth to Water	4.00 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	01:10:41	1500.01	20.20	6.01	134.58	2.44	6.02	0.09	-63.39
Last 5	01:15:41	1800.02	20.20	6.02	134.99	2.06	6.06	0.09	-69.93
Last 5	01:20:41	2100.01	20.20	6.02	134.79	2.43	6.08	0.09	-75.00
Last 5	01:25:41	2400.02	20.20	6.03	135.44	2.78	6.09	0.08	-80.04
Last 5	01:30:41	2700.02	20.21	6.03	134.26	2.00	6.11	0.08	-84.35
Variance 0			0.00	0.00	-0.20			-0.00	-5.07
Variance 1			0.00	0.01	0.65			-0.00	-5.04
Variance 2			0.02	0.00	-1.18			-0.00	-4.31

Notes

Sample time 08:45. Cloudy 66.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 11:04:01

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28.0 ft

Well Information:		Pumping Information:	
Well ID	MW-03	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	33.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.11 in
Depth to Water	5.65 ft	Total Volume Pumped	60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:41:16	7802.03	21.35	5.18	52.77	13.30	5.76	0.07	126.15
Last 5	10:46:16	8102.02	21.37	4.96	52.96	12.50	5.76	0.07	128.21
Last 5	10:51:17	8403.02	21.39	4.96	53.00	14.40	5.76	0.07	131.48
Last 5	10:56:17	8703.02	21.42	5.16	52.75	13.00	5.76	0.07	133.69
Last 5	11:01:17	9003.02	21.46	4.97	53.14	9.92	5.76	0.07	135.42
Variance 0			0.02	-0.00	0.03			0.00	3.27
Variance 1			0.03	0.20	-0.24			-0.00	2.21
Variance 2			0.04	-0.19	0.39			-0.00	1.73

Notes

Sample time 1104. Misty 67.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-12 10:30:56

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	MW-06	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	40 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	45 in
Depth to Water	13.61 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:08:37	1200.02	23.86	5.30	9373.77	2.25	16.85	0.49	23.03
Last 5	10:13:37	1500.02	23.83	5.28	9473.26	2.67	17.05	0.56	22.11
Last 5	10:18:37	1800.02	23.70	5.26	9644.17	1.25	17.28	0.53	19.85
Last 5	10:23:37	2100.02	23.63	5.25	9727.75	1.41	17.39	0.47	16.46
Last 5	10:28:37	2400.02	23.60	5.23	9851.79	0.88	17.48	0.42	13.03
Variance 0			-0.13	-0.02	170.91			-0.03	-2.26
Variance 1			-0.07	-0.01	83.57			-0.06	-3.39
Variance 2			-0.03	-0.02	124.04			-0.05	-3.43

Notes

Sample time 1031. Sunny 67.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-12 09:55:11

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	MW-07	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	40 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11 in
Depth to Water	11.67 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:31:26	1269.01	23.23	6.04	11058.66	10.70	12.32	0.12	-217.29
Last 5	09:36:26	1569.01	23.16	6.06	11049.42	9.11	12.32	0.12	-217.36
Last 5	09:41:26	1869.01	23.23	6.09	11009.36	6.29	12.32	0.11	-217.29
Last 5	09:46:26	2169.01	23.41	6.11	11010.54	4.84	12.34	0.10	-218.49
Last 5	09:51:26	2469.01	23.28	6.14	11038.40	2.69	12.34	0.10	-217.93
Variance 0			0.08	0.03	-40.05			-0.01	0.07
Variance 1			0.18	0.02	1.17			-0.00	-1.20
Variance 2			-0.13	0.03	27.87			-0.00	0.55

Notes

Sample time 1000. Sunny 63.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 18:37:16

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	49 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-08	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3087077 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	68 in
Depth to Water	18.08 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	18:13:48	1500.02	22.55	4.21	11641.88	6.31	23.07	0.15	3.97
Last 5	18:18:48	1800.02	22.53	4.29	11641.13	5.02	23.35	0.14	-1.20
Last 5	18:23:48	2100.02	22.53	4.34	11625.79	4.38	23.57	0.14	-5.16
Last 5	18:28:48	2400.02	22.50	4.38	11608.38	3.40	23.74	0.14	-8.89
Last 5	18:33:52	2704.02	22.49	4.44	11650.15	3.14	23.85	0.13	-13.74
Variance 0			-0.01	0.04	-15.34			-0.00	-3.96
Variance 1			-0.03	0.04	-17.41			-0.00	-3.74
Variance 2			-0.00	0.06	41.77			-0.00	-4.84

Notes

Sample time 1836. FB-01 sample time 1723. EB-01 sample time 1730. Cloudy 69.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 17:24:39

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-09	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15 in
Depth to Water	10.78 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	17:00:28	300.02	23.04	6.75	7172.26	4.38	11.89	0.17	-252.65
Last 5	17:05:28	600.01	23.01	6.74	7214.06	1.67	11.96	0.40	-238.51
Last 5	17:10:28	900.01	23.01	6.71	7322.65	0.81	12.01	0.16	-247.02
Last 5	17:15:28	1200.01	23.01	6.69	7384.03	1.04	12.04	0.09	-250.55
Last 5	17:20:28	1500.01	23.01	6.69	7415.65	0.68	12.04	0.07	-253.68
Variance 0			0.00	-0.02	108.59			-0.24	-8.51
Variance 1			-0.00	-0.02	61.38			-0.07	-3.53
Variance 2			-0.00	-0.00	31.62			-0.02	-3.14

Notes

Sample time 1725. Cloudy 64.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 16:06:30

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-10	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	20 in
Depth to Water	8.88 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:39:13	300.02	22.75	5.09	8527.98	15.70	10.15	0.17	-137.59
Last 5	15:44:13	600.01	22.75	5.22	8705.75	8.96	10.33	0.13	-162.95
Last 5	15:49:13	900.01	22.77	5.25	8757.80	6.23	10.41	0.11	-167.28
Last 5	15:54:13	1200.01	22.78	5.27	8800.57	8.49	10.47	0.10	-165.87
Last 5	15:59:13	1500.00	22.82	5.24	8816.96	4.55	10.51	0.09	-161.62
Variance 0			0.01	0.02	52.05			-0.02	-4.33
Variance 1			0.02	0.02	42.77			-0.01	1.41
Variance 2			0.04	-0.03	16.39			-0.01	4.25

Notes

Sample time 1610. Cloudy 66.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 11:36:55

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-11	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	42 in
Depth to Water	9.69 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:51:07	2099.99	23.64	6.28	8564.38	16.70	13.02	0.08	-294.70
Last 5	10:56:07	2399.99	23.64	6.27	8628.63	19.70	13.10	0.08	-296.08
Last 5	11:01:07	2699.99	23.65	6.27	8674.08	48.80	13.13	0.07	-298.69
Last 5	11:06:07	2999.98	23.63	6.27	8684.45	87.90	13.17	0.07	-298.87
Last 5	11:11:10	3302.98	23.57	6.26	8709.13	85.20	13.21	0.10	-299.87
Variance 0			0.01	-0.00	45.46			-0.00	-2.61
Variance 1			-0.02	-0.00	10.37			0.00	-0.17
Variance 2			-0.06	-0.00	24.68			0.03	-1.01

Notes

Report-1. Low flow program locked up so we had to start over.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 13:11:18

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-11	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	42 in
Depth to Water	9.69 ft	Total Volume Pumped	30 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:44:02	3299.99	23.37	6.24	8938.21	9.72	13.26	0.07	-294.08
Last 5	12:49:02	3599.98	23.36	6.23	8942.43	9.19	13.27	0.07	-294.16
Last 5	12:54:02	3899.98	23.38	6.24	8927.33	8.29	13.27	0.07	-294.54
Last 5	12:59:02	4200.03	23.33	6.24	8948.27	7.67	13.26	0.07	-294.08
Last 5	13:04:02	4500.00	23.28	6.24	8956.88	7.63	13.26	0.07	-293.33
Variance 0			0.03	0.01	-15.10			-0.00	-0.39
Variance 1			-0.05	-0.01	20.94			0.00	0.46
Variance 2			-0.05	0.01	8.61			0.00	0.75

Notes

Sample time 13:10. Cloudy 66. Report 2 of 2

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 14:03:55

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	56 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	PZ-11D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3399517 L
Well Total Depth	56 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	30 in
Depth to Water	7.13 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:43:37	300.03	23.18	6.79	5993.69	5.56	8.95	0.42	-108.03
Last 5	13:48:37	600.02	22.87	6.79	6004.58	5.47	9.52	0.18	-117.62
Last 5	13:53:37	900.01	22.87	6.79	5982.21	4.95	9.61	0.12	-119.46
Last 5	13:58:37	1200.01	22.70	6.79	5996.08	4.16	9.62	0.09	-120.32
Last 5									
Variance 0			-0.30	0.01	10.89			-0.24	-9.59
Variance 1			-0.00	-0.00	-22.37			-0.06	-1.84
Variance 2			-0.18	-0.00	13.88			-0.03	-0.86

Notes

Sample time 1405. Cloudy 66.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 14:07:57

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	MW-12	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	32 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	69 in
Depth to Water	9.67 ft	Total Volume Pumped	32 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:44:41	3600.02	22.40	6.18	1013.45	6.01	15.22	0.11	31.44
Last 5	13:49:41	3900.02	22.40	6.18	1001.80	5.76	15.32	0.11	30.06
Last 5	13:54:41	4200.02	22.40	6.16	995.23	4.45	15.42	0.11	28.56
Last 5	13:59:41	4500.02	22.36	6.15	982.45	4.15	15.48	0.11	26.89
Last 5	14:04:41	4800.02	22.27	6.15	996.26	3.36	15.54	0.11	25.20
Variance 0			0.00	-0.02	-6.57			0.00	-1.50
Variance 1			-0.04	-0.01	-12.79			0.00	-1.66
Variance 2			-0.09	0.00	13.82			-0.00	-1.69

Notes

Sample time 1409. Cloudy 70.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-12 13:19:00

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	17 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	10.5 ft

Well Information:		Pumping Information:	
Well ID	MWI-12A	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.1658782 L
Well Total Depth	15.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	19 in
Depth to Water	6.82 ft	Total Volume Pumped	24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:52:45	2402.02	18.43	6.10	652.57	2.45	8.44	0.52	67.74
Last 5	12:57:45	2702.02	18.48	6.10	651.37	2.25	8.48	0.49	67.33
Last 5	13:02:45	3002.02	18.57	6.01	708.84	2.01	8.48	0.44	67.35
Last 5	13:07:45	3302.02	18.55	6.01	719.80	2.04	8.48	0.45	66.47
Last 5	13:12:45	3602.08	18.53	6.04	686.69	1.63	8.48	0.43	64.99
Variance 0			0.09	-0.09	57.47			-0.05	0.03
Variance 1			-0.01	-0.00	10.96			0.01	-0.89
Variance 2			-0.02	0.03	-33.10			-0.01	-1.48

Notes

Sample time 1319. Dup-02 fake time 0700. Sunny 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-12 13:12:21

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-13	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	38 in
Depth to Water	17.27 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:54:07	300.02	24.00	6.87	14426.86	0.92	19.70	0.15	-288.22
Last 5	12:59:07	600.02	23.87	6.98	14209.77	0.88	20.25	0.09	-300.96
Last 5	13:04:07	900.01	23.91	6.98	14292.36	0.98	20.40	0.08	-305.88
Last 5	13:09:08	1201.01	23.86	6.96	14332.13	0.71	20.45	0.07	-307.95
Last 5									
Variance 0			-0.13	0.11	-217.08			-0.06	-12.74
Variance 1			0.04	-0.00	82.58			-0.01	-4.92
Variance 2			-0.05	-0.02	39.78			-0.00	-2.07

Notes

Sample time 1315. Sunny 72

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-12 12:23:12

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	52.7 ft

Well Information:		Pumping Information:	
Well ID	PZ-13D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	57.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	30 in
Depth to Water	18.31 ft	Total Volume Pumped	26 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:58:40	2700.01	23.50	4.52	14116.45	3.56	20.70	0.13	-98.57
Last 5	12:03:41	3000.99	23.47	4.52	14074.17	3.03	20.74	0.12	-96.89
Last 5	12:08:43	3302.99	23.55	4.51	14096.42	2.66	20.78	0.12	-96.18
Last 5	12:13:44	3603.99	23.55	4.51	14068.18	2.48	20.80	0.11	-94.63
Last 5	12:18:48	3907.98	23.59	4.52	14056.10	2.35	20.83	0.11	-95.15
Variance 0			0.08	-0.01	22.25			-0.00	0.71
Variance 1			0.00	-0.00	-28.24			-0.00	1.55
Variance 2			0.04	0.01	-12.09			-0.00	-0.53

Notes

Sample time 1225. Sunny 70.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-11 16:31:29

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	46 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	36.0 ft

Well Information:		Pumping Information:	
Well ID	MW-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2953174 L
Well Total Depth	41 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6 in
Depth to Water	21.98 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:07:43	300.02	22.75	6.88	7676.99	0.84	22.50	0.23	-246.67
Last 5	16:12:43	600.02	22.77	6.91	7575.92	0.54	22.54	0.17	-305.88
Last 5	16:17:43	900.02	22.80	6.92	7603.36	0.61	22.54	0.14	-315.63
Last 5	16:22:43	1200.02	22.82	6.92	7629.89	0.88	22.54	0.13	-319.68
Last 5	16:27:43	1500.02	22.80	6.92	7612.15	0.71	22.54	0.12	-322.81
Variance 0			0.03	0.00	27.43			-0.03	-9.75
Variance 1			0.02	0.00	26.54			-0.01	-4.05
Variance 2			-0.02	0.00	-17.74			-0.01	-3.14

Notes

Sample time 1632. Dup-01 fake time 1532. Cloudy 70.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-12 15:38:54

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	21 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	19.8 ft

Well Information:		Pumping Information:	
Well ID	PZ-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.1837319 L
Well Total Depth	24.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	33 in
Depth to Water	2.33 ft	Total Volume Pumped	24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:11:45	2402.02	21.20	6.38	12755.27	5.47	5.52	0.17	-267.94
Last 5	15:16:45	2702.02	21.17	6.39	12774.53	6.56	5.54	0.19	-268.06
Last 5	15:21:45	3001.99	21.18	6.38	12774.81	3.35	5.58	0.19	-268.26
Last 5	15:26:45	3301.99	21.21	6.38	12764.30	2.40	5.59	0.17	-268.28
Last 5	15:31:45	3601.98	21.18	6.38	12766.96	2.50	5.62	0.16	-268.19
Variance 0			0.00	-0.00	0.28			-0.00	-0.20
Variance 1			0.03	0.00	-10.51			-0.02	-0.02
Variance 2			-0.03	-0.00	2.66			-0.01	0.09

Notes

Sample time 1540.sunny 70. FB-02 sample time 1435.EB-02 sample time 1445

Grab Samples

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-167250-1
Client Project/Site: CCR Smith Plant
Revision: 1

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
5/22/2019 11:03:35 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-167250-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-167250-1

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 434664 and analytical batch 434847 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6), MW-13 (400-167250-7), MW-14 (400-167250-8) and DUP-01 (400-167250-9). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The matrix spike duplicate (MSD) recoveries for preparation batch 434726 and analytical batch 435076 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

General Chemistry

Method(s) SM 2540C: Reanalysis of the following samples were performed outside of the analytical holding time due to first run being over weight: MW-14 (400-167250-8) and DUP-01 (400-167250-9). Both sets of data have been reported.

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 434792 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 434905 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample, the MS/MSD were diluted after the spike. The spike amount was adjusted by the dilution factor. (400-167250-A-3 MS) and (400-167250-A-3 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 434873 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6), MW-13 (400-167250-7), MW-14 (400-167250-8), DUP-01 (400-167250-9), (400-167250-A-3 MS) and (400-167250-A-3 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6), MW-14 (400-167250-8) and DUP-01 (400-167250-9). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-13 (400-167250-7), (400-167809-C-1), (400-167809-C-1 MS) and (400-167809-C-1 MSD). Elevated reporting limits (RLs) are provided.

Comments

Report was revised to correct a data error. Samples in batch were revised to correct the initial volume used in out of hold batch. Analyst filtered sample at 0.5 mL and decimal was missed at time of data entry. MW-14 (400-167250-8) and DUP-01 (400-167250-9)

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-06 — Lab Sample ID: 400-167250-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00079	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0012	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Lithium	0.017		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - DL	9.7		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	260		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	5400		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	2900		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	510		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	5.23				SU	1		Field Sampling	Total/NA
Field Temperature	23.60				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-07 — Lab Sample ID: 400-167250-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0012	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.15		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0035		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0020	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - DL	3.0		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium - DL	430		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	6800		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	3300		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Sulfate	870		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.14				SU	1		Field Sampling	Total/NA
Field Temperature	23.28				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-08 — Lab Sample ID: 400-167250-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0017		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.058		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0011	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Lithium	0.0075		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - DL	14		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	500		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	7300		130	85	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-08 (Continued) — Lab Sample ID: 400-167250-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3300		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Sulfate	920		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.44				SU	1		Field Sampling	Total/NA
Field Temperature	22.49				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-09 — Lab Sample ID: 400-167250-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0046		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.087		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Lithium	0.0023	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0056	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Boron - DL	9.5		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	240		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	5200		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2200		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	560		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.69				SU	1		Field Sampling	Total/NA
Field Temperature	23.01				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 400-167250-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0026		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0030		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.0093		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0051		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - DL	10		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	480		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	6400		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2700		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Sulfate	860		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	5.24				SU	1		Field Sampling	Total/NA
Field Temperature	22.82				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 400-167250-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.011		0.0013	0.00046	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-11 (Continued) — Lab Sample ID: 400-167250-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.16		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0013	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Chromium	0.0033		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0058		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0082	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Boron - DL	3.6		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium - DL	200		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	6000		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2900		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	310		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.24				SU	1		Field Sampling	Total/NA
Field Temperature	23.28				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 400-167250-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0011	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.081		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Lithium	0.19		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.017		0.015	0.0020	mg/L	5		6020	Total Recoverable
Boron - DL	14		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	660		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	9600		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	4500		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.24		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	880		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.96				SU	1		Field Sampling	Total/NA
Field Temperature	23.86				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 400-167250-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0049		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.057		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Lithium	0.0020	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.017		0.015	0.0020	mg/L	5		6020	Total Recoverable
Boron - DL	14		1.0	0.42	mg/L	100		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-14 (Continued) — Lab Sample ID: 400-167250-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	270		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	45000	L	50	34	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	46000	Q	500	340	mg/L	1		SM 2540C	Total/NA
Chloride	2200		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Fluoride	0.11		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	640		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.92				SU	1		Field Sampling	Total/NA
Field Temperature	22.80				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-167250-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0049		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.049		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Lithium	0.0017	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.015		0.015	0.0020	mg/L	5		6020	Total Recoverable
Boron - DL	13		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	260		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	45000	L	50	34	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	46000	Q	500	340	mg/L	1		SM 2540C	Total/NA
Chloride	2100		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Fluoride	0.090	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	650		150	42	mg/L	30		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-167250-10

No Detections.

Client Sample ID: EB-01 — Lab Sample ID: 400-167250-11

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Assest ID
400-167250-1	MW-06	Water	03/12/19 10:31	03/13/19 08:50	
400-167250-2	MW-07	Water	03/12/19 10:00	03/13/19 08:50	
400-167250-3	MW-08	Water	03/11/19 18:36	03/13/19 08:50	
400-167250-4	MW-09	Water	03/11/19 17:25	03/13/19 08:50	
400-167250-5	MW-10	Water	03/11/19 16:10	03/13/19 08:50	
400-167250-6	MW-11	Water	03/11/19 13:10	03/13/19 08:50	
400-167250-7	MW-13	Water	03/12/19 13:15	03/13/19 08:50	
400-167250-8	MW-14	Water	03/11/19 16:32	03/13/19 08:50	
400-167250-9	DUP-01	Water	03/11/19 15:32	03/13/19 08:50	
400-167250-10	FB-01	Water	03/11/19 17:23	03/13/19 08:50	
400-167250-11	EB-01	Water	03/11/19 17:30	03/13/19 08:50	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-06

Date Collected: 03/12/19 10:31
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 19:25	5
Arsenic	**0.00079**	**I**	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 19:25	5
Barium	**0.060**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 19:25	5
Beryllium	**0.0012**	**I**	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 19:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 19:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 19:25	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 19:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 19:25	5
Lithium	**0.017**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 19:25	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 19:25	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 19:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 19:25	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**9.7**		0.50	0.21	mg/L		03/26/19 10:22	03/27/19 09:11	50
Calcium	**260**		2.5	1.3	mg/L		03/26/19 10:22	03/27/19 09:11	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 10:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5400**		130	85	mg/L			03/19/19 13:25	1
Chloride	**2900**		160	110	mg/L			03/27/19 11:14	80
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			03/20/19 20:37	1
Sulfate	**510**		150	42	mg/L			03/26/19 11:50	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.23**				SU			03/12/19 10:31	1
Field Temperature	**23.60**				Centigrade			03/12/19 10:31	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-07

Date Collected: 03/12/19 10:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:02	5
Arsenic	**0.0012**	**I**	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:02	5
Barium	**0.15**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:02	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:02	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:02	5
Chromium	**0.0035**		0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:02	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:02	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:02	5
Lithium	**0.0020**	**I**	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:02	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:02	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:02	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:02	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.0**		0.25	0.11	mg/L		03/26/19 10:22	03/27/19 09:15	25
Calcium	**430**		1.3	0.63	mg/L		03/26/19 10:22	03/27/19 09:15	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 10:54	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6800**		130	85	mg/L			03/19/19 13:25	1
Chloride	**3300**		160	110	mg/L			03/27/19 11:21	80
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 13:57	1
Sulfate	**870**		150	42	mg/L			03/26/19 15:10	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.14**				SU			03/12/19 10:00	1
Field Temperature	**23.28**				Centigrade			03/12/19 10:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-08

Date Collected: 03/11/19 18:36
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:06	5
Arsenic	**0.0017**		0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:06	5
Barium	**0.058**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:06	5
Beryllium	**0.0011**	**I**	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:06	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:06	5
Lithium	**0.0075**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:06	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:06	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:06	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**		1.0	0.42	mg/L		03/26/19 10:22	03/27/19 09:19	100
Calcium	**500**		5.0	2.5	mg/L		03/26/19 10:22	03/27/19 09:19	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 10:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7300**		130	85	mg/L			03/14/19 13:45	1
Chloride	**3300**		160	110	mg/L			03/27/19 11:13	80
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 13:25	1
Sulfate	**920**		150	42	mg/L			03/26/19 15:06	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.44**				SU			03/11/19 18:36	1
Field Temperature	**22.49**				Centigrade			03/11/19 18:36	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-09

Date Collected: 03/11/19 17:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:09	5
Arsenic	**0.0046**		0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:09	5
Barium	**0.087**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:09	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:09	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:09	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:09	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:09	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:09	5
Lithium	**0.0023**	**I**	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:09	5
Molybdenum	**0.0056**	**I**	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:09	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:09	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:09	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**9.5**		0.50	0.21	mg/L		03/26/19 10:22	03/27/19 09:23	50
Calcium	**240**		2.5	1.3	mg/L		03/26/19 10:22	03/27/19 09:23	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:42	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5200**		50	34	mg/L			03/14/19 13:45	1
Chloride	**2200**		160	110	mg/L			03/27/19 11:10	80
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			03/27/19 13:29	1
Sulfate	**560**		150	42	mg/L			03/26/19 15:06	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.69**				SU			03/11/19 17:25	1
Field Temperature	**23.01**				Centigrade			03/11/19 17:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-10

Date Collected: 03/11/19 16:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:13	5
Arsenic	**0.0026**		0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:13	5
Barium	**0.097**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:13	5
Chromium	**0.0030**		0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:13	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:13	5
Lead	**0.0093**		0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:13	5
Lithium	**0.0051**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:13	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:13	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:13	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:13	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**10**		0.50	0.21	mg/L		03/26/19 10:22	03/27/19 09:45	50
Calcium	**480**		2.5	1.3	mg/L		03/26/19 10:22	03/27/19 09:45	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6400**		50	34	mg/L			03/14/19 13:45	1
Chloride	**2700**		160	110	mg/L			03/27/19 11:10	80
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 13:33	1
Sulfate	**860**		150	42	mg/L			03/26/19 15:06	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.24**				SU			03/11/19 16:10	1
Field Temperature	**22.82**				Centigrade			03/11/19 16:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-11

Date Collected: 03/11/19 13:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:17	5
Arsenic	**0.011**		0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:17	5
Barium	**0.16**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:17	5
Beryllium	**0.0013**	**I**	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:17	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:17	5
Chromium	**0.0033**		0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:17	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:17	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:17	5
Lithium	**0.0058**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:17	5
Molybdenum	**0.0082**	**I**	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:17	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:17	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:17	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.6**		0.25	0.11	mg/L		03/26/19 10:22	03/27/19 09:49	25
Calcium	**200**		1.3	0.63	mg/L		03/26/19 10:22	03/27/19 09:49	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:46	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6000**		50	34	mg/L			03/14/19 13:45	1
Chloride	**2900**		160	110	mg/L			03/27/19 11:10	80
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			03/26/19 11:49	1
Sulfate	**310**		150	42	mg/L			03/26/19 15:06	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.24**				SU			03/11/19 13:10	1
Field Temperature	**23.28**				Centigrade			03/11/19 13:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-13

Date Collected: 03/12/19 13:15
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:20	5
Arsenic	**0.0011**	**I**	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:20	5
Barium	**0.081**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:20	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:20	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:20	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:20	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:20	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:20	5
Lithium	**0.19**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:20	5
Molybdenum	**0.017**		0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:20	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:20	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:20	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**		1.0	0.42	mg/L		03/26/19 10:22	03/27/19 09:52	100
Calcium	**660**		5.0	2.5	mg/L		03/26/19 10:22	03/27/19 09:52	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9600**		130	85	mg/L			03/14/19 13:45	1
Chloride	**4500**		200	140	mg/L			03/27/19 11:35	100
Fluoride	**0.24**		0.10	0.032	mg/L			03/26/19 11:39	1
Sulfate	**880**		150	42	mg/L			03/27/19 16:02	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.96**				SU			03/12/19 13:15	1
Field Temperature	**23.86**				Centigrade			03/12/19 13:15	1

Client Sample ID: MW-14

Date Collected: 03/11/19 16:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:24	5
Arsenic	**0.0049**		0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:24	5
Barium	**0.057**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:24	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:24	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:24	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:24	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:24	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:24	5
Lithium	**0.0020**	**I**	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:24	5
Molybdenum	**0.017**		0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:24	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:24	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:24	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**14**		1.0	0.42	mg/L		03/26/19 10:22	03/27/19 09:56	100
Calcium	**270**		5.0	2.5	mg/L		03/26/19 10:22	03/27/19 09:56	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**45000**	**L**	50	34	mg/L			03/14/19 13:45	1
Total Dissolved Solids	**46000**	**Q**	500	340	mg/L			03/19/19 15:27	1
Chloride	**2200**		160	110	mg/L			03/27/19 11:10	80
Fluoride	**0.11**		0.10	0.032	mg/L			03/26/19 11:45	1
Sulfate	**640**		150	42	mg/L			03/26/19 15:10	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.92**				SU			03/11/19 16:32	1
Field Temperature	**22.80**				Centigrade			03/11/19 16:32	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: DUP-01

Date Collected: 03/11/19 15:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:28	5
Arsenic	**0.0049**		0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:28	5
Barium	**0.049**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:28	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:28	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:28	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:28	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:28	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:28	5
Lithium	**0.0017**	**I**	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:28	5
Molybdenum	**0.015**		0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:28	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:28	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:28	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**13**		1.0	0.42	mg/L		03/26/19 10:22	03/27/19 10:00	100
Calcium	**260**		5.0	2.5	mg/L		03/26/19 10:22	03/27/19 10:00	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**45000**	**L**	50	34	mg/L			03/14/19 13:45	1
Total Dissolved Solids	**46000**	**Q**	500	340	mg/L			03/19/19 15:27	1
Chloride	**2100**		160	110	mg/L			03/27/19 11:13	80
Fluoride	**0.090**	**I**	0.10	0.032	mg/L			03/26/19 11:52	1
Sulfate	**650**		150	42	mg/L			03/26/19 15:10	30

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: FB-01

Lab Sample ID: 400-167250-10

Date Collected: 03/11/19 17:23

Matrix: Water

Date Received: 03/13/19 08:50

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:50	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:50	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:50	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/26/19 20:50	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:50	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:22	03/26/19 20:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:50	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:50	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:50	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:50	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:50	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:53	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/14/19 13:45	1
Chloride	1.4	U	2.0	1.4	mg/L			03/27/19 09:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 13:37	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/26/19 14:21	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: EB-01

Date Collected: 03/11/19 17:30
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-11

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:54	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:54	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:22	03/26/19 20:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:54	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:54	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:54	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:54	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:54	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/27/19 10:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:34	03/28/19 11:55	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/14/19 13:45	1
Chloride	1.4	U	2.0	1.4	mg/L			03/27/19 09:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 13:41	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/26/19 14:21	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
Q	Sample held beyond the accepted holding time.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-06

Date Collected: 03/12/19 10:31
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 19:25	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	50	434847	03/27/19 09:11	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 10:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434093	03/20/19 20:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434700	03/26/19 11:50	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/12/19 10:31	AW	TAL PEN

Client Sample ID: MW-07

Date Collected: 03/12/19 10:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:02	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	25	434847	03/27/19 09:15	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 10:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:57	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:10	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/12/19 10:00	AW	TAL PEN

Client Sample ID: MW-08

Date Collected: 03/11/19 18:36
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:06	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	100	434847	03/27/19 09:19	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 10:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:25	BAB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-08
Date Collected: 03/11/19 18:36
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:06	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 18:36	AW	TAL PEN

Client Sample ID: MW-09
Date Collected: 03/11/19 17:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:09	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	50	434847	03/27/19 09:23	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:06	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 17:25	AW	TAL PEN

Client Sample ID: MW-10
Date Collected: 03/11/19 16:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:13	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	50	434847	03/27/19 09:45	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:33	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:06	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 16:10	AW	TAL PEN

Client Sample ID: MW-11
Date Collected: 03/11/19 13:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:17	DRE	TAL PEN

Client Sample ID: MW-11

Lab Sample ID: 400-167250-6

Date Collected: 03/11/19 13:10

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	25	434847	03/27/19 09:49	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434792	03/26/19 11:49	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:06	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 13:10	AW	TAL PEN

Client Sample ID: MW-13

Lab Sample ID: 400-167250-7

Date Collected: 03/12/19 13:15

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:20	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	100	434847	03/27/19 09:52	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	434873	03/27/19 11:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434792	03/26/19 11:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434937	03/27/19 16:02	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/12/19 13:15	AW	TAL PEN

Client Sample ID: MW-14

Lab Sample ID: 400-167250-8

Date Collected: 03/11/19 16:32

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:24	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	100	434847	03/27/19 09:56	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 2540C		1	433880	03/19/19 15:27	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434792	03/26/19 11:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:10	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: MW-14
Date Collected: 03/11/19 16:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 16:32	AW	TAL PEN

Client Sample ID: DUP-01
Date Collected: 03/11/19 15:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:28	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	100	434847	03/27/19 10:00	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 2540C		1	433880	03/19/19 15:27	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	434873	03/27/19 11:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434792	03/26/19 11:52	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434753	03/26/19 15:10	RRC	TAL PEN

Client Sample ID: FB-01
Date Collected: 03/11/19 17:23
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:50	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	434873	03/27/19 09:39	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	434753	03/26/19 14:21	RRC	TAL PEN

Client Sample ID: EB-01
Date Collected: 03/11/19 17:30
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:54	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	434847	03/27/19 10:07	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:34	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:55	JAP	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Client Sample ID: EB-01

Date Collected: 03/11/19 17:30
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	434873	03/27/19 09:39	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	434753	03/26/19 14:21	RRC	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 434664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total Recoverable	Water	3005A	
400-167250-1 - DL	MW-06	Total Recoverable	Water	3005A	
400-167250-2 - DL	MW-07	Total Recoverable	Water	3005A	
400-167250-2	MW-07	Total Recoverable	Water	3005A	
400-167250-3	MW-08	Total Recoverable	Water	3005A	
400-167250-3 - DL	MW-08	Total Recoverable	Water	3005A	
400-167250-4 - DL	MW-09	Total Recoverable	Water	3005A	
400-167250-4	MW-09	Total Recoverable	Water	3005A	
400-167250-5 - DL	MW-10	Total Recoverable	Water	3005A	
400-167250-5	MW-10	Total Recoverable	Water	3005A	
400-167250-6	MW-11	Total Recoverable	Water	3005A	
400-167250-6 - DL	MW-11	Total Recoverable	Water	3005A	
400-167250-7	MW-13	Total Recoverable	Water	3005A	
400-167250-7 - DL	MW-13	Total Recoverable	Water	3005A	
400-167250-8	MW-14	Total Recoverable	Water	3005A	
400-167250-8 - DL	MW-14	Total Recoverable	Water	3005A	
400-167250-9 - DL	DUP-01	Total Recoverable	Water	3005A	
400-167250-9	DUP-01	Total Recoverable	Water	3005A	
400-167250-10	FB-01	Total Recoverable	Water	3005A	
400-167250-11	EB-01	Total Recoverable	Water	3005A	
400-167250-11 - RA	EB-01	Total Recoverable	Water	3005A	
MB 400-434664/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-434664/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-167250-1 MS	MW-06	Total Recoverable	Water	3005A	
400-167250-1 MSD	MW-06	Total Recoverable	Water	3005A	

Prep Batch: 434726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	7470A	
400-167250-2	MW-07	Total/NA	Water	7470A	
400-167250-3	MW-08	Total/NA	Water	7470A	
400-167250-4	MW-09	Total/NA	Water	7470A	
400-167250-5	MW-10	Total/NA	Water	7470A	
400-167250-6	MW-11	Total/NA	Water	7470A	
400-167250-7	MW-13	Total/NA	Water	7470A	
400-167250-8	MW-14	Total/NA	Water	7470A	
400-167250-9	DUP-01	Total/NA	Water	7470A	
400-167250-10	FB-01	Total/NA	Water	7470A	
400-167250-11	EB-01	Total/NA	Water	7470A	
MB 400-434726/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-434726/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-167559-K-1-D MS	Matrix Spike	Total/NA	Water	7470A	
400-167559-K-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 434847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total Recoverable	Water	6020	434664
400-167250-1 - DL	MW-06	Total Recoverable	Water	6020	434664
400-167250-2	MW-07	Total Recoverable	Water	6020	434664
400-167250-2 - DL	MW-07	Total Recoverable	Water	6020	434664
400-167250-3	MW-08	Total Recoverable	Water	6020	434664

Metals (Continued)

Analysis Batch: 434847 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-3 - DL	MW-08	Total Recoverable	Water	6020	434664
400-167250-4	MW-09	Total Recoverable	Water	6020	434664
400-167250-4 - DL	MW-09	Total Recoverable	Water	6020	434664
400-167250-5	MW-10	Total Recoverable	Water	6020	434664
400-167250-5 - DL	MW-10	Total Recoverable	Water	6020	434664
400-167250-6	MW-11	Total Recoverable	Water	6020	434664
400-167250-6 - DL	MW-11	Total Recoverable	Water	6020	434664
400-167250-7	MW-13	Total Recoverable	Water	6020	434664
400-167250-7 - DL	MW-13	Total Recoverable	Water	6020	434664
400-167250-8	MW-14	Total Recoverable	Water	6020	434664
400-167250-8 - DL	MW-14	Total Recoverable	Water	6020	434664
400-167250-9	DUP-01	Total Recoverable	Water	6020	434664
400-167250-9 - DL	DUP-01	Total Recoverable	Water	6020	434664
400-167250-10	FB-01	Total Recoverable	Water	6020	434664
400-167250-11	EB-01	Total Recoverable	Water	6020	434664
400-167250-11 - RA	EB-01	Total Recoverable	Water	6020	434664
MB 400-434664/1-A ^5	Method Blank	Total Recoverable	Water	6020	434664
LCS 400-434664/2-A	Lab Control Sample	Total Recoverable	Water	6020	434664
400-167250-1 MS	MW-06	Total Recoverable	Water	6020	434664
400-167250-1 MSD	MW-06	Total Recoverable	Water	6020	434664

Analysis Batch: 435076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	7470A	434726
400-167250-2	MW-07	Total/NA	Water	7470A	434726
400-167250-3	MW-08	Total/NA	Water	7470A	434726
400-167250-4	MW-09	Total/NA	Water	7470A	434726
400-167250-5	MW-10	Total/NA	Water	7470A	434726
400-167250-6	MW-11	Total/NA	Water	7470A	434726
400-167250-7	MW-13	Total/NA	Water	7470A	434726
400-167250-8	MW-14	Total/NA	Water	7470A	434726
400-167250-9	DUP-01	Total/NA	Water	7470A	434726
400-167250-10	FB-01	Total/NA	Water	7470A	434726
400-167250-11	EB-01	Total/NA	Water	7470A	434726
MB 400-434726/14-A	Method Blank	Total/NA	Water	7470A	434726
LCS 400-434726/15-A	Lab Control Sample	Total/NA	Water	7470A	434726
400-167559-K-1-D MS	Matrix Spike	Total/NA	Water	7470A	434726
400-167559-K-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	434726

General Chemistry

Analysis Batch: 433367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-3	MW-08	Total/NA	Water	SM 2540C	
400-167250-4	MW-09	Total/NA	Water	SM 2540C	
400-167250-5	MW-10	Total/NA	Water	SM 2540C	
400-167250-6	MW-11	Total/NA	Water	SM 2540C	
400-167250-7	MW-13	Total/NA	Water	SM 2540C	
400-167250-8	MW-14	Total/NA	Water	SM 2540C	
400-167250-9	DUP-01	Total/NA	Water	SM 2540C	
400-167250-10	FB-01	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 433367 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-11	EB-01	Total/NA	Water	SM 2540C	
MB 400-433367/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-433367/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-167255-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-167255-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 433847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	SM 2540C	
400-167250-2	MW-07	Total/NA	Water	SM 2540C	
MB 400-433847/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-433847/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-167226-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 433880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-8	MW-14	Total/NA	Water	SM 2540C	
400-167250-9	DUP-01	Total/NA	Water	SM 2540C	
MB 400-433880/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-433880/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-167233-N-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 434093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	SM 4500 F C	
MB 400-434093/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-434093/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-93242-C-8 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-93242-C-8 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 434700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	SM 4500 SO4 E	
MB 400-434700/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-434700/15	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-434700/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167490-D-15 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167490-D-15 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 434753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-2	MW-07	Total/NA	Water	SM 4500 SO4 E	
400-167250-3	MW-08	Total/NA	Water	SM 4500 SO4 E	
400-167250-4	MW-09	Total/NA	Water	SM 4500 SO4 E	
400-167250-5	MW-10	Total/NA	Water	SM 4500 SO4 E	
400-167250-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
400-167250-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
400-167250-9	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-167250-10	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-167250-11	EB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-434753/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 434753 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-434753/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-434753/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167255-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167255-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 434792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-6	MW-11	Total/NA	Water	SM 4500 F C	
400-167250-7	MW-13	Total/NA	Water	SM 4500 F C	
400-167250-8	MW-14	Total/NA	Water	SM 4500 F C	
400-167250-9	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-434792/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-434792/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-93285-B-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-93285-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-167648-A-6 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 434873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	SM 4500 Cl- E	
400-167250-2	MW-07	Total/NA	Water	SM 4500 Cl- E	
400-167250-3	MW-08	Total/NA	Water	SM 4500 Cl- E	
400-167250-4	MW-09	Total/NA	Water	SM 4500 Cl- E	
400-167250-5	MW-10	Total/NA	Water	SM 4500 Cl- E	
400-167250-6	MW-11	Total/NA	Water	SM 4500 Cl- E	
400-167250-7	MW-13	Total/NA	Water	SM 4500 Cl- E	
400-167250-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
400-167250-9	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-167250-10	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-167250-11	EB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-434873/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-434873/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-434873/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-167250-3 MS	MW-08	Total/NA	Water	SM 4500 Cl- E	
400-167250-3 MSD	MW-08	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 434905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-2	MW-07	Total/NA	Water	SM 4500 F C	
400-167250-3	MW-08	Total/NA	Water	SM 4500 F C	
400-167250-4	MW-09	Total/NA	Water	SM 4500 F C	
400-167250-5	MW-10	Total/NA	Water	SM 4500 F C	
400-167250-10	FB-01	Total/NA	Water	SM 4500 F C	
400-167250-11	EB-01	Total/NA	Water	SM 4500 F C	
MB 400-434905/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-434905/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-93285-B-7 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-93285-B-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-167250-2 DU	MW-07	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

General Chemistry

Analysis Batch: 434937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-7	MW-13	Total/NA	Water	SM 4500 SO4 E	
MB 400-434937/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-434937/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-434937/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167809-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167809-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 434567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	Field Sampling	
400-167250-2	MW-07	Total/NA	Water	Field Sampling	
400-167250-3	MW-08	Total/NA	Water	Field Sampling	
400-167250-4	MW-09	Total/NA	Water	Field Sampling	
400-167250-5	MW-10	Total/NA	Water	Field Sampling	
400-167250-6	MW-11	Total/NA	Water	Field Sampling	
400-167250-7	MW-13	Total/NA	Water	Field Sampling	
400-167250-8	MW-14	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-434664/1-A ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 19:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 19:14	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 19:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 19:14	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/26/19 19:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 19:14	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:22	03/26/19 19:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 19:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 19:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 19:14	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 19:14	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 19:14	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 19:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 19:14	5

Lab Sample ID: LCS 400-434664/2-A
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0470		mg/L		94	80 - 120
Arsenic	0.0500	0.0527		mg/L		105	80 - 120
Barium	0.0500	0.0475		mg/L		95	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Boron	0.100	0.0992		mg/L		99	80 - 120
Cadmium	0.0500	0.0504		mg/L		101	80 - 120
Calcium	5.00	4.97		mg/L		99	80 - 120
Chromium	0.0500	0.0505		mg/L		101	80 - 120
Cobalt	0.0500	0.0524		mg/L		105	80 - 120
Lead	0.0500	0.0510		mg/L		102	80 - 120
Lithium	0.0500	0.0512		mg/L		102	80 - 120
Molybdenum	0.0500	0.0502		mg/L		100	80 - 120
Selenium	0.0500	0.0488		mg/L		98	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

Lab Sample ID: 400-167250-1 MS
Matrix: Water
Analysis Batch: 434847

Client Sample ID: MW-06
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0490		mg/L		98	75 - 125
Arsenic	0.00079	I	0.0500	0.0545		mg/L		107	75 - 125
Barium	0.060		0.0500	0.109		mg/L		97	75 - 125
Beryllium	0.0012	I	0.0500	0.0492		mg/L		96	75 - 125
Boron	9.0	L	0.100	8.76	L J3	mg/L		-254	75 - 125
Cadmium	0.00034	U	0.0500	0.0479		mg/L		96	75 - 125
Calcium	270	L	5.00	271	L J3	mg/L		36	75 - 125
Chromium	0.0011	U	0.0500	0.0510		mg/L		102	75 - 125
Cobalt	0.00040	U	0.0500	0.0513		mg/L		103	75 - 125

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

Lab Sample ID: 400-167250-1 MS
Matrix: Water
Analysis Batch: 434847

Client Sample ID: MW-06
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.00035	U	0.0500	0.0521		mg/L		104	75 - 125
Lithium	0.017		0.0500	0.0671		mg/L		100	75 - 125
Molybdenum	0.0020	U	0.0500	0.0538		mg/L		108	75 - 125
Selenium	0.00071	U	0.0500	0.0202	J3	mg/L		40	75 - 125
Thallium	0.000085	U	0.0100	0.00940		mg/L		94	75 - 125

Lab Sample ID: 400-167250-1 MSD
Matrix: Water
Analysis Batch: 434847

Client Sample ID: MW-06
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0500		mg/L		100	75 - 125	2	20
Arsenic	0.00079	I	0.0500	0.0566		mg/L		112	75 - 125	4	20
Barium	0.060		0.0500	0.114		mg/L		107	75 - 125	5	20
Beryllium	0.0012	I	0.0500	0.0504		mg/L		98	75 - 125	2	20
Boron	9.0	L	0.100	9.32	L J3	mg/L		314	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0486		mg/L		97	75 - 125	2	20
Calcium	270	L	5.00	281	L J3	mg/L		240	75 - 125	4	20
Chromium	0.0011	U	0.0500	0.0535		mg/L		107	75 - 125	5	20
Cobalt	0.00040	U	0.0500	0.0532		mg/L		106	75 - 125	4	20
Lead	0.00035	U	0.0500	0.0548		mg/L		110	75 - 125	5	20
Lithium	0.017		0.0500	0.0674		mg/L		101	75 - 125	0	20
Molybdenum	0.0020	U	0.0500	0.0564		mg/L		113	75 - 125	5	20
Selenium	0.00071	U	0.0500	0.0201	J3	mg/L		40	75 - 125	0	20
Thallium	0.000085	U	0.0100	0.00960		mg/L		96	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-434726/14-A
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434726

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:12	03/28/19 10:39	1

Lab Sample ID: LCS 400-434726/15-A
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000936		mg/L		93	80 - 120

Lab Sample ID: 400-167559-K-1-D MS
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 434726

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00169		mg/L		84	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-167559-K-1-E MSD
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 434726

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00141	J3	mg/L		70	80 - 120	18	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-433367/1
Matrix: Water
Analysis Batch: 433367

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/14/19 13:45	1

Lab Sample ID: LCS 400-433367/2
Matrix: Water
Analysis Batch: 433367

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-167255-A-1 DU
Matrix: Water
Analysis Batch: 433367

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	72		70.0		mg/L		3	5

Lab Sample ID: 400-167255-A-3 DU
Matrix: Water
Analysis Batch: 433367

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	440		424		mg/L		3	5

Lab Sample ID: MB 400-433847/1
Matrix: Water
Analysis Batch: 433847

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/19/19 13:25	1

Lab Sample ID: LCS 400-433847/2
Matrix: Water
Analysis Batch: 433847

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	252		mg/L		86	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-167226-A-8 DU
Matrix: Water
Analysis Batch: 433847

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	110			116		mg/L				2	5

Lab Sample ID: MB 400-433880/1
Matrix: Water
Analysis Batch: 433880

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/19/19 15:27	1

Lab Sample ID: LCS 400-433880/2
Matrix: Water
Analysis Batch: 433880

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	282		mg/L		96	78 - 122		

Lab Sample ID: 400-167233-N-1 DU
Matrix: Water
Analysis Batch: 433880

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	200			200		mg/L				1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-434873/6
Matrix: Water
Analysis Batch: 434873

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			03/27/19 09:36	1

Lab Sample ID: LCS 400-434873/7
Matrix: Water
Analysis Batch: 434873

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			30.0	30.8		mg/L		103	90 - 110		

Lab Sample ID: MRL 400-434873/3
Matrix: Water
Analysis Batch: 434873

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.98	I	mg/L		99	50 - 150		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-167250-3 MS
Matrix: Water
Analysis Batch: 434873

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	3300		10.0	3250	J3	mg/L		-480	73 - 120		

Lab Sample ID: 400-167250-3 MSD
Matrix: Water
Analysis Batch: 434873

Client Sample ID: MW-08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3300		10.0	3300	J3	mg/L		-26	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-434093/4
Matrix: Water
Analysis Batch: 434093

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/19 19:13	1

Lab Sample ID: LCS 400-434093/5
Matrix: Water
Analysis Batch: 434093

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 660-93242-C-8 MS
Matrix: Water
Analysis Batch: 434093

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.10		1.00	1.10		mg/L		100	75 - 125		

Lab Sample ID: 660-93242-C-8 MSD
Matrix: Water
Analysis Batch: 434093

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.10		1.00	1.10		mg/L		100	75 - 125	0	4

Lab Sample ID: MB 400-434792/3
Matrix: Water
Analysis Batch: 434792

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/26/19 10:05	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-434792/4
Matrix: Water
Analysis Batch: 434792

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 660-93285-B-10 MS
Matrix: Water
Analysis Batch: 434792

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.29		1.00	0.840	J3	mg/L		55	75 - 125		

Lab Sample ID: 660-93285-B-10 MSD
Matrix: Water
Analysis Batch: 434792

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.29		1.00	0.840	J3	mg/L		55	75 - 125	0	4

Lab Sample ID: 400-167648-A-6 DU
Matrix: Water
Analysis Batch: 434792

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	25		24.6		mg/L		0	4

Lab Sample ID: MB 400-434905/3
Matrix: Water
Analysis Batch: 434905

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 12:58	1

Lab Sample ID: LCS 400-434905/4
Matrix: Water
Analysis Batch: 434905

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 660-93285-B-7 MS
Matrix: Water
Analysis Batch: 434905

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.23		1.00	0.810	J3	mg/L		58	75 - 125		

Lab Sample ID: 660-93285-B-7 MSD
Matrix: Water
Analysis Batch: 434905

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.23		1.00	0.790	J3	mg/L		56	75 - 125	3	4

Method: SM 4500 F C - Fluoride

Lab Sample ID: 400-167250-2 DU
Matrix: Water
Analysis Batch: 434905

Client Sample ID: MW-07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-434700/6
Matrix: Water
Analysis Batch: 434700

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/26/19 10:53	1

Lab Sample ID: LCS 400-434700/15
Matrix: Water
Analysis Batch: 434700

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.2		mg/L		101	90 - 110

Lab Sample ID: MRL 400-434700/3
Matrix: Water
Analysis Batch: 434700

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.81		mg/L		116	50 - 150

Lab Sample ID: 400-167490-D-15 MS
Matrix: Water
Analysis Batch: 434700

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	11		10.0	20.5		mg/L		97	77 - 128

Lab Sample ID: 400-167490-D-15 MSD
Matrix: Water
Analysis Batch: 434700

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	11		10.0	20.4		mg/L		96	77 - 128	0	5

Lab Sample ID: MB 400-434753/6
Matrix: Water
Analysis Batch: 434753

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/26/19 14:04	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-434753/7
Matrix: Water
Analysis Batch: 434753

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.1		mg/L		101	90 - 110

Lab Sample ID: MRL 400-434753/3
Matrix: Water
Analysis Batch: 434753

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.02		mg/L		100	50 - 150

Lab Sample ID: 400-167255-A-1 MS
Matrix: Water
Analysis Batch: 434753

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.2		10.0	14.7		mg/L		95	77 - 128

Lab Sample ID: 400-167255-A-1 MSD
Matrix: Water
Analysis Batch: 434753

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	5.2		10.0	14.7		mg/L		95	77 - 128	0	5

Lab Sample ID: MB 400-434937/6
Matrix: Water
Analysis Batch: 434937

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/27/19 15:05	1

Lab Sample ID: LCS 400-434937/7
Matrix: Water
Analysis Batch: 434937

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.3		mg/L		95	90 - 110

Lab Sample ID: MRL 400-434937/3
Matrix: Water
Analysis Batch: 434937

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.09	I	mg/L		82	50 - 150

Lab Sample ID: 400-167809-C-1 MS
Matrix: Water
Analysis Batch: 434937

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	160		10.0	157	J3	mg/L		-42	77 - 128

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: 400-167809-C-1 MSD
Matrix: Water
Analysis Batch: 434937

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	160		10.0	157	J3	mg/L		-38	77 - 128	0	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Kirk Heyendorfer / Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82849-29464.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #:			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site:	SSOW#:			

Analysis Requested

400-167250 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-06	3-12-19	1031	G	Water			X	X	X			
MW-07	3-12-19	1000	G	Water			X	X	X			
MW-08	3-11-19	1836	G	Water			X	X	X			
MW-09	3-11-19	1725	G	Water			X	X	X			
MW-10	3-11-19	1610	G	Water			X	X	X			
MW-11	3-11-19	1310	G	Water			X	X	X			
MW-13	3-12-19	1315	G	Water			X	X	X			
MW-14	3-11-19	1632	G	Water			X	X	X			
DUP-01	3-11-19	1532	G	Water			X	X	X			
FB-01	3-11-19	1723	G	Water			X	X	X			
EB-01	3-11-19	1730	G	Water			X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3/13/19 0850	RDH	[signature]	3-13-19 850	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		1.1°C, 0.8°, 0.9°, 0.4°, 0.7°C, IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167250-1

Login Number: 167250
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C, 0.8°C, 0.9°C, 0.4°C, 0.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-1

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-167250-2
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/25/2019 10:31:55 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-167250-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-167250-2

Receipt Exceptions
The reference method requires samples to be preserved to a pH of <2.. The following sample(s) was received with insufficient preservation at a pH of 7. The sample(s) was preserved to the appropriate pH in the laboratory, by adding 12mL of HNO3, for a final pH of <2. Preserved on 03/15/2019 at 10:15

RAD
Method(s) 9315: Radium-226 Prep Batch 160-419788. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (400-167250-10), EB-01 (400-167250-11), (LCS 160-419788/1-A), (MB 160-419788/24-A), (240-109108-H-9-A), (240-109108-A-9-A MS) and (240-109108-A-9-B MSD)

Method(s) 9315: Ra-226 Prep Batch 160-420733. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-14 (400-167250-8), DUP-01 (400-167250-9), (LCS 160-420733/1-A), (LCSD 160-420733/2-A) and (MB 160-420733/10-A)

Method(s) 9315: Ra-226 Prep Batch 160-420750. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6), MW-13 (400-167250-7), (LCS 160-420750/1-A), (LCSD 160-420750/2-A) and (MB 160-420750/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-419798. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01 (400-167250-10), EB-01 (400-167250-11), (LCS 160-419798/1-A), (MB 160-419798/24-A), (240-109108-H-9-B), (240-109108-A-9-C MS) and (240-109108-A-9-D MSD)

Method(s) 9320: Ra-228 Prep Batch 160-420737. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-14 (400-167250-8), DUP-01 (400-167250-9), (LCS 160-420737/1-A), (LCSD 160-420737/2-A) and (MB 160-420737/10-A)

Method(s) 9320: Ra-228 Prep Batch 160-420752. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6), MW-13 (400-167250-7), (LCS 160-420752/1-A), (LCSD 160-420752/2-A) and (MB 160-420752/23-A)

Method(s) PrecSep_0: Radium-228 Prep Batch 420737: The following samples were run at a reduced aliquot: MW-14 (400-167250-8) and DUP-01 (400-167250-9). Sample 240-109020 contained sediment. Samples 400-167250-8, and 400-167250-9 were yellow in color and had a sulfuric odor. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-14 (400-167250-8) and DUP-01 (400-167250-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium-228 Prep Batch 420752: The following samples were run at a reduced aliquot due to sediment and yellow sample matrix: MW-07 (400-167250-2), MW-09 (400-167250-4), MW-10 (400-167250-5) and MW-11 (400-167250-6). Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6) and MW-13 (400-167250-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 420733: The following samples were run at a reduced aliquot: MW-14 (400-167250-8)

Job ID: 400-167250-2 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

and DUP-01 (400-167250-9). Sample 240-109020 contained sediment. Samples 400-167250-8, and 400-167250-9 were yellow in color and had a sulfuric odor. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-14 (400-167250-8) and DUP-01 (400-167250-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 420750: The following samples were run at a reduced aliquot due to sediment and yellow sample matrix: MW-07 (400-167250-2), MW-09 (400-167250-4), MW-10 (400-167250-5) and MW-11 (400-167250-6). Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-06 (400-167250-1), MW-07 (400-167250-2), MW-08 (400-167250-3), MW-09 (400-167250-4), MW-10 (400-167250-5), MW-11 (400-167250-6) and MW-13 (400-167250-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-167250-1	MW-06	Water	03/12/19 10:31	03/13/19 08:50
400-167250-2	MW-07	Water	03/12/19 10:00	03/13/19 08:50
400-167250-3	MW-08	Water	03/11/19 18:36	03/13/19 08:50
400-167250-4	MW-09	Water	03/11/19 17:25	03/13/19 08:50
400-167250-5	MW-10	Water	03/11/19 16:10	03/13/19 08:50
400-167250-6	MW-11	Water	03/11/19 13:10	03/13/19 08:50
400-167250-7	MW-13	Water	03/12/19 13:15	03/13/19 08:50
400-167250-8	MW-14	Water	03/11/19 16:32	03/13/19 08:50
400-167250-9	DUP-01	Water	03/11/19 15:32	03/13/19 08:50
400-167250-10	FB-01	Water	03/11/19 17:23	03/13/19 08:50
400-167250-11	EB-01	Water	03/11/19 17:30	03/13/19 08:50

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: MW-06

Date Collected: 03/12/19 10:31
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	9.35		0.529	0.994	1.00	0.105	pCi/L	03/22/19 12:48	04/17/19 13:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	16.5		0.879	1.76	1.00	0.444	pCi/L	03/22/19 13:23	04/10/19 15:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	25.9		1.03	2.02	5.00	0.444	pCi/L		04/22/19 16:14	1

Client Sample ID: MW-07

Date Collected: 03/12/19 10:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	38.6		1.23	3.68	1.00	0.129	pCi/L	03/22/19 12:48	04/17/19 13:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.76		0.715	1.01	1.00	0.508	pCi/L	03/22/19 13:23	04/10/19 15:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*
Y Carrier	*83.0*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	46.3		1.42	3.82	5.00	0.508	pCi/L		04/22/19 16:14	1

Client Sample ID: MW-08

Date Collected: 03/11/19 18:36
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	11.8		0.610	1.23	1.00	0.116	pCi/L	03/22/19 12:48	04/17/19 13:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	21.1		1.01	2.19	1.00	0.413	pCi/L	03/22/19 13:23	04/10/19 15:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*
Y Carrier	*81.9*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	32.9		1.18	2.51	5.00	0.413	pCi/L		04/22/19 16:14	1

Client Sample ID: MW-09

Date Collected: 03/11/19 17:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.03		0.491	0.732	1.00	0.157	pCi/L	03/22/19 12:48	04/17/19 13:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.14		0.524	0.647	1.00	0.437	pCi/L	03/22/19 13:23	04/10/19 15:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*
Y Carrier	*84.9*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	10.2		0.718	0.977	5.00	0.437	pCi/L		04/22/19 16:14	1

Client Sample ID: MW-10

Date Collected: 03/11/19 16:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	4.48		0.425	0.585	1.00	0.118	pCi/L	03/22/19 12:48	04/17/19 13:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	13.8		0.913	1.57	1.00	0.514	pCi/L	03/22/19 13:23	04/10/19 15:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*
Y Carrier	*84.5*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	18.3		1.01	1.68	5.00	0.514	pCi/L		04/22/19 16:14	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: MW-11

Date Collected: 03/11/19 13:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	27.5		1.03	2.68	1.00	0.128	pCi/L	03/22/19 12:48	04/17/19 13:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	9.03		0.736	1.11	1.00	0.463	pCi/L	03/22/19 13:23	04/10/19 15:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*
Y Carrier	*84.5*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	36.5		1.27	2.90	5.00	0.463	pCi/L		04/22/19 16:14	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: MW-13
Date Collected: 03/12/19 13:15
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.52		0.395	0.635	1.00	0.0855	pCi/L	03/22/19 12:48	04/17/19 13:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/22/19 12:48*	*04/17/19 13:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.19		0.525	0.775	1.00	0.352	pCi/L	03/22/19 13:23	04/10/19 15:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:31*	*1*
Y Carrier	*84.5*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:31*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	11.7		0.657	1.00	5.00	0.352	pCi/L		04/22/19 16:14	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: MW-14

Date Collected: 03/11/19 16:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.89		0.283	0.330	1.00	0.121	pCi/L	03/22/19 10:52	04/17/19 15:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/22/19 10:52*	*04/17/19 15:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.10		0.472	0.552	1.00	0.453	pCi/L	03/22/19 11:26	04/10/19 09:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/22/19 11:26*	*04/10/19 09:10*	*1*
Y Carrier	*94.2*		*40 - 110*	*03/22/19 11:26*	*04/10/19 09:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.99		0.550	0.643	5.00	0.453	pCi/L		04/22/19 16:14	1

Client Sample ID: DUP-01

Date Collected: 03/11/19 15:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.48		0.246	0.280	1.00	0.127	pCi/L	03/22/19 10:52	04/17/19 15:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*03/22/19 10:52*	*04/17/19 15:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.94		0.479	0.550	1.00	0.515	pCi/L	03/22/19 11:26	04/10/19 09:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*03/22/19 11:26*	*04/10/19 09:10*	*1*
Y Carrier	*93.1*		*40 - 110*	*03/22/19 11:26*	*04/10/19 09:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.42		0.538	0.617	5.00	0.515	pCi/L		04/22/19 16:14	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: FB-01

Date Collected: 03/11/19 17:23
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0145	U	0.0389	0.0389	1.00	0.0927	pCi/L	03/18/19 11:43	04/15/19 18:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.153	U	0.195	0.196	1.00	0.324	pCi/L	03/18/19 12:28	04/03/19 09:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:26*	*1*
Y Carrier	*90.5*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:26*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.139	U	0.199	0.200	5.00	0.324	pCi/L		04/22/19 16:14	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: EB-01
Date Collected: 03/11/19 17:30
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00845	U	0.0509	0.0509	1.00	0.101	pCi/L	03/18/19 11:43	04/15/19 18:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.121	U	0.190	0.190	1.00	0.362	pCi/L	03/18/19 12:28	04/03/19 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*
Y Carrier	*94.2*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.112	U	0.197	0.197	5.00	0.362	pCi/L		04/22/19 16:14	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: MW-06
Date Collected: 03/12/19 10:31
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:06	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: MW-07
Date Collected: 03/12/19 10:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: MW-08
Date Collected: 03/11/19 18:36
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: MW-09
Date Collected: 03/11/19 17:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: MW-10
Date Collected: 03/11/19 16:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: MW-11
Date Collected: 03/11/19 13:10
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: MW-13
Date Collected: 03/12/19 13:15
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420750	03/22/19 12:48	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 13:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420752	03/22/19 13:23	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 15:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: MW-14
Date Collected: 03/11/19 16:32
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167250-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420733	03/22/19 10:52	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 15:19	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420737	03/22/19 11:26	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 09:10	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Client Sample ID: DUP-01

Lab Sample ID: 400-167250-9

Date Collected: 03/11/19 15:32

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420733	03/22/19 10:52	HET	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 15:19	CDR	TAL SL
Total/NA	Prep	PrecSep_0			420737	03/22/19 11:26	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 09:10	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: FB-01

Lab Sample ID: 400-167250-10

Date Collected: 03/11/19 17:23

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:56	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422457	04/03/19 09:26	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Client Sample ID: EB-01

Lab Sample ID: 400-167250-11

Date Collected: 03/11/19 17:30

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:56	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422457	04/03/19 09:27	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424970	04/22/19 16:14	BLH	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 419788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-10	FB-01	Total/NA	Water	PrecSep-21	
400-167250-11	EB-01	Total/NA	Water	PrecSep-21	
MB 160-419788/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-419788/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-109108-A-9-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-109108-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 419798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-10	FB-01	Total/NA	Water	PrecSep_0	
400-167250-11	EB-01	Total/NA	Water	PrecSep_0	
MB 160-419798/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-419798/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-109108-A-9-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-109108-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 420733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-8	MW-14	Total/NA	Water	PrecSep-21	
400-167250-9	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-420733/10-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-420733/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-420733/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 420737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-8	MW-14	Total/NA	Water	PrecSep_0	
400-167250-9	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-420737/10-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-420737/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-420737/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 420750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	PrecSep-21	
400-167250-2	MW-07	Total/NA	Water	PrecSep-21	
400-167250-3	MW-08	Total/NA	Water	PrecSep-21	
400-167250-4	MW-09	Total/NA	Water	PrecSep-21	
400-167250-5	MW-10	Total/NA	Water	PrecSep-21	
400-167250-6	MW-11	Total/NA	Water	PrecSep-21	
400-167250-7	MW-13	Total/NA	Water	PrecSep-21	
MB 160-420750/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-420750/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-420750/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 420752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-1	MW-06	Total/NA	Water	PrecSep_0	
400-167250-2	MW-07	Total/NA	Water	PrecSep_0	
400-167250-3	MW-08	Total/NA	Water	PrecSep_0	
400-167250-4	MW-09	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 420752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167250-5	MW-10	Total/NA	Water	PrecSep_0	
400-167250-6	MW-11	Total/NA	Water	PrecSep_0	
400-167250-7	MW-13	Total/NA	Water	PrecSep_0	
MB 160-420752/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-420752/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-420752/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-419788/24-A
Matrix: Water
Analysis Batch: 423899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419788

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.004257	U	0.0314	0.0314	1.00	0.0726	pCi/L	03/18/19 11:43	04/15/19 21:33	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/18/19 11:43*	*04/15/19 21:33*	*1*

Lab Sample ID: LCS 160-419788/1-A
Matrix: Water
Analysis Batch: 424032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419788

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.031		0.936	1.00	0.0722	pCi/L	80	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*

Lab Sample ID: 240-109108-A-9-A MS
Matrix: Water
Analysis Batch: 423847

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 419788

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.282		11.4	9.862		1.02	1.00	0.0717	pCi/L	84	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*

Lab Sample ID: 240-109108-A-9-B MSD
Matrix: Water
Analysis Batch: 423847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 419788

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.282		11.3	10.14		1.06	1.00	0.0846	pCi/L	87	75 - 138	0.13	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*

Lab Sample ID: MB 160-420733/10-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420733

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0007506	U	0.0417	0.0417	1.00	0.0915	pCi/L	03/22/19 10:52	04/17/19 15:19	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-420733/10-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420733

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110	03/22/19 10:52	04/17/19 15:19	1

Lab Sample ID: LCS 160-420733/1-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420733

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.709		1.04	1.00	0.0840	pCi/L	86	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.0		40 - 110

Lab Sample ID: LCSD 160-420733/2-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 420733

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	8.600		0.936	1.00	0.0990	pCi/L	76	75 - 125	0.56	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	94.7		40 - 110

Lab Sample ID: MB 160-420750/23-A
Matrix: Water
Analysis Batch: 424264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420750

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02674	U	0.0300	0.0301	1.00	0.0871	pCi/L	03/22/19 12:48	04/17/19 13:08	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110	03/22/19 12:48	04/17/19 13:08	1

Lab Sample ID: LCS 160-420750/1-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420750

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.163		0.975	1.00	0.0749	pCi/L	81	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	109		40 - 110

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-420750/2-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 420750

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	10.24		1.08	1.00	0.0953	pCi/L	90	75 - 125	0.52	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-419798/24-A
Matrix: Water
Analysis Batch: 422476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419798

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2727	U	0.187	0.188	1.00	0.285	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*
Y Carrier	*93.5*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*

Lab Sample ID: LCS 160-419798/1-A
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419798

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.34	8.869		1.03	1.00	0.334	pCi/L	95	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*86.7*		*40 - 110*

Lab Sample ID: 240-109108-A-9-C MS
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 419798

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.546		9.33	9.426		1.10	1.00	0.425	pCi/L	95	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*
Y Carrier	*91.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-109108-A-9-D MSD
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 419798

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.546		9.33	9.444		1.11	1.00	0.422	pCi/L	95	45 - 150	0.01	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*
Y Carrier	*90.8*		*40 - 110*

Lab Sample ID: MB 160-420737/10-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420737

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01893	U	0.218	0.218	1.00	0.385	pCi/L	03/22/19 11:26	04/10/19 09:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/22/19 11:26*	*04/10/19 09:10*	*1*
Y Carrier	*95.7*		*40 - 110*	*03/22/19 11:26*	*04/10/19 09:10*	*1*

Lab Sample ID: LCS 160-420737/1-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420737

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.31	8.703		1.01	1.00	0.356	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.0*		*40 - 110*
Y Carrier	*93.5*		*40 - 110*

Lab Sample ID: LCSD 160-420737/2-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 420737

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.31	8.382		0.982	1.00	0.331	pCi/L	90	75 - 125	0.16	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*94.7*		*40 - 110*
Y Carrier	*93.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-420752/23-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420752

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2824	U	0.187	0.188	1.00	0.286	pCi/L	03/22/19 13:23	04/10/19 15:32	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:32*	*1*
Y Carrier	*92.7*		*40 - 110*	*03/22/19 13:23*	*04/10/19 15:32*	*1*

Lab Sample ID: LCS 160-420752/1-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420752

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.31	8.569		1.00	1.00	0.354	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*109*		*40 - 110*
Y Carrier	*78.9*		*40 - 110*

Lab Sample ID: LCSD 160-420752/2-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 420752

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.31	8.165		0.966	1.00	0.339	pCi/L	88	75 - 125	0.21	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
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Client Information	Sampler: Rick Hayendorfer / Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82849-29464.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #:			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site:	SSOW#:			

Analysis Requested

400-167250 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-06	3-12-19	1031	G	Water			X	X	X			
MW-07	3-12-19	1000	G	Water			X	X	X			
MW-08	3-11-19	1836	G	Water			X	X	X			
MW-09	3-11-19	1725	G	Water			X	X	X			
MW-10	3-11-19	1610	G	Water			X	X	X			
MW-11	3-11-19	1310	G	Water			X	X	X			
MW-13	3-12-19	1315	G	Water			X	X	X			
MW-14	3-11-19	1632	G	Water			X	X	X			
DUP-01	3-11-19	1532	G	Water			X	X	X			
FB-01	3-11-19	1723	G	Water			X	X	X			
EB-01	3-11-19	1730	G	Water			X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3/13/19 0850	RDH	Kathy R Avery	3-13-19 850	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		1.1°C, 0.8°, 0.9°, 0.4°, 0.7°C, IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167250-2

Login Number: 167250
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C, 0.8°C, 0.9°C, 0.4°C, 0.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167250-2

Login Number: 167250
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/15/19 10:35 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	Refer to Job Narrative for details.
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167250-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

TestAmerica
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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-167255-1
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
3/31/2019 4:19:22 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-167255-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-167255-1

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 434664 and analytical batch 434847 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

General Chemistry
Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 434905 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample, the MS/MSD were diluted after the spike. The spike amount was adjusted by the dilution factor. (400-167250-A-3 MS) and (400-167250-A-3 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 434873 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-12 (400-167255-3), (400-167250-A-3), (400-167250-A-3 MS) and (400-167250-A-3 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Client Sample ID: MW-02 — Lab Sample ID: 400-167255-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0024	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.03				SU	1		Field Sampling	Total/NA
Field Temperature	20.21				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-03 — Lab Sample ID: 400-167255-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.013		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	4.97				SU	1		Field Sampling	Total/NA
Field Temperature	21.46				Centigrade	1		Field Sampling	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 400-167255-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	31		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.014		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	190		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.15				SU	1		Field Sampling	Total/NA
Field Temperature	22.27				Centigrade	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-167255-1	MW-02	Water	03/11/19 08:45	03/13/19 08:50
400-167255-2	MW-03	Water	03/11/19 11:04	03/13/19 08:50
400-167255-3	MW-12	Water	03/11/19 14:09	03/13/19 08:50

Client Sample ID: MW-02
Date Collected: 03/11/19 08:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-1
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 20:58	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 20:58	5
Barium	**0.011**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 20:58	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:58	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/26/19 20:58	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 20:58	5
Calcium	**16**		0.25	0.13	mg/L		03/26/19 10:22	03/26/19 20:58	5
Chromium	**0.0018**	**I**	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 20:58	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 20:58	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 20:58	5
Lithium	**0.0024**	**I**	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 20:58	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 20:58	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 20:58	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 20:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:36	03/28/19 11:57	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**72**		5.0	3.4	mg/L			03/14/19 13:45	1
Chloride	**12**		2.0	1.4	mg/L			03/27/19 09:39	1
Fluoride	**0.080**	**I**	0.10	0.032	mg/L			03/27/19 13:45	1
Sulfate	**5.2**		5.0	1.4	mg/L			03/26/19 14:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.03**				SU			03/11/19 08:45	1
Field Temperature	**20.21**				Centigrade			03/11/19 08:45	1

Client Sample ID: MW-03
Date Collected: 03/11/19 11:04
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-2
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 21:01	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 21:01	5
Barium	**0.018**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 21:01	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 21:01	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 21:01	5
Calcium	**1.9**		0.25	0.13	mg/L		03/26/19 10:22	03/26/19 21:01	5
Chromium	**0.0020**	**I**	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 21:01	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 21:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 21:01	5
Lithium	**0.013**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 21:01	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 21:01	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 21:01	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 21:01	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/27/19 10:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:36	03/28/19 11:59	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12**		5.0	3.4	mg/L			03/14/19 13:45	1
Chloride	**13**		2.0	1.4	mg/L			03/27/19 09:39	1
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			03/27/19 14:16	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/26/19 14:21	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.97**				SU			03/11/19 11:04	1
Field Temperature	**21.46**				Centigrade			03/11/19 11:04	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Client Sample ID: MW-12

Date Collected: 03/11/19 14:09
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 21:05	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 21:05	5
Barium	**0.011**		0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 21:05	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 21:05	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/26/19 21:05	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 21:05	5
Calcium	**31**		0.25	0.13	mg/L		03/26/19 10:22	03/26/19 21:05	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 21:05	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 21:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 21:05	5
Lithium	**0.014**		0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 21:05	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 21:05	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 21:05	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 21:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:36	03/28/19 12:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		5.0	3.4	mg/L			03/14/19 13:45	1
Chloride	**190**		40	28	mg/L			03/27/19 11:14	20
Fluoride	**0.12**		0.10	0.032	mg/L			03/27/19 13:47	1
Sulfate	**1.5**	**I**	5.0	1.4	mg/L			03/26/19 14:21	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.15**				SU			03/11/19 14:09	1
Field Temperature	**22.27**				Centigrade			03/11/19 14:09	1

Qualifiers

Metals

Qualifier	Qualifier Description
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

General Chemistry

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Client Sample ID: MW-02

Date Collected: 03/11/19 08:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 20:58	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	434873	03/27/19 09:39	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	434753	03/26/19 14:18	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 08:45	AW	TAL PEN

Client Sample ID: MW-03

Date Collected: 03/11/19 11:04
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 21:01	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	434847	03/27/19 10:14	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 11:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	434873	03/27/19 09:39	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 14:16	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	434753	03/26/19 14:21	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 11:04	AW	TAL PEN

Client Sample ID: MW-12

Date Collected: 03/11/19 14:09
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434664	03/26/19 10:22	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 21:05	DRE	TAL PEN
Total/NA	Prep	7470A			434726	03/26/19 14:36	JAP	TAL PEN
Total/NA	Analysis	7470A		1	435076	03/28/19 12:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	434873	03/27/19 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	434905	03/27/19 13:47	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	434753	03/26/19 14:21	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 14:09	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Laboratory References:

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

Metals

Prep Batch: 434664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total Recoverable	Water	3005A	
400-167255-2 - RA	MW-03	Total Recoverable	Water	3005A	
400-167255-2	MW-03	Total Recoverable	Water	3005A	
400-167255-3	MW-12	Total Recoverable	Water	3005A	
MB 400-434664/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-434664/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-167250-C-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-167250-C-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 434726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	7470A	
400-167255-2	MW-03	Total/NA	Water	7470A	
400-167255-3	MW-12	Total/NA	Water	7470A	
MB 400-434726/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-434726/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-167559-K-1-D MS	Matrix Spike	Total/NA	Water	7470A	
400-167559-K-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 434847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total Recoverable	Water	6020	434664
400-167255-2	MW-03	Total Recoverable	Water	6020	434664
400-167255-2 - RA	MW-03	Total Recoverable	Water	6020	434664
400-167255-3	MW-12	Total Recoverable	Water	6020	434664
MB 400-434664/1-A ^5	Method Blank	Total Recoverable	Water	6020	434664
LCS 400-434664/2-A	Lab Control Sample	Total Recoverable	Water	6020	434664
400-167250-C-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	434664
400-167250-C-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	434664

Analysis Batch: 435076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	7470A	434726
400-167255-2	MW-03	Total/NA	Water	7470A	434726
400-167255-3	MW-12	Total/NA	Water	7470A	434726
MB 400-434726/14-A	Method Blank	Total/NA	Water	7470A	434726
LCS 400-434726/15-A	Lab Control Sample	Total/NA	Water	7470A	434726
400-167559-K-1-D MS	Matrix Spike	Total/NA	Water	7470A	434726
400-167559-K-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	434726

General Chemistry

Analysis Batch: 433367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	SM 2540C	
400-167255-2	MW-03	Total/NA	Water	SM 2540C	
400-167255-3	MW-12	Total/NA	Water	SM 2540C	
MB 400-433367/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-433367/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-167255-1 DU	MW-02	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 433367 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-3 DU	MW-12	Total/NA	Water	SM 2540C	

Analysis Batch: 434753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	SM 4500 SO4 E	
400-167255-2	MW-03	Total/NA	Water	SM 4500 SO4 E	
400-167255-3	MW-12	Total/NA	Water	SM 4500 SO4 E	
MB 400-434753/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-434753/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-434753/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167255-1 MS	MW-02	Total/NA	Water	SM 4500 SO4 E	
400-167255-1 MSD	MW-02	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 434873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	SM 4500 Cl- E	
400-167255-2	MW-03	Total/NA	Water	SM 4500 Cl- E	
400-167255-3	MW-12	Total/NA	Water	SM 4500 Cl- E	
MB 400-434873/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-434873/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-434873/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-167250-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-167250-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-167730-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-167730-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 434905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	SM 4500 F C	
400-167255-2	MW-03	Total/NA	Water	SM 4500 F C	
400-167255-3	MW-12	Total/NA	Water	SM 4500 F C	
MB 400-434905/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-434905/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-93285-B-7 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-93285-B-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-167250-A-2 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 434567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	Field Sampling	
400-167255-2	MW-03	Total/NA	Water	Field Sampling	
400-167255-3	MW-12	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-434664/1-A ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/26/19 10:22	03/26/19 19:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:22	03/26/19 19:14	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:22	03/26/19 19:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 19:14	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:22	03/26/19 19:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:22	03/26/19 19:14	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:22	03/26/19 19:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:22	03/26/19 19:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:22	03/26/19 19:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/26/19 10:22	03/26/19 19:14	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/26/19 10:22	03/26/19 19:14	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:22	03/26/19 19:14	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:22	03/26/19 19:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/26/19 10:22	03/26/19 19:14	5

Lab Sample ID: LCS 400-434664/2-A
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0470		mg/L		94	80 - 120
Arsenic	0.0500	0.0527		mg/L		105	80 - 120
Barium	0.0500	0.0475		mg/L		95	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Boron	0.100	0.0992		mg/L		99	80 - 120
Cadmium	0.0500	0.0504		mg/L		101	80 - 120
Calcium	5.00	4.97		mg/L		99	80 - 120
Chromium	0.0500	0.0505		mg/L		101	80 - 120
Cobalt	0.0500	0.0524		mg/L		105	80 - 120
Lead	0.0500	0.0510		mg/L		102	80 - 120
Lithium	0.0500	0.0512		mg/L		102	80 - 120
Molybdenum	0.0500	0.0502		mg/L		100	80 - 120
Selenium	0.0500	0.0488		mg/L		98	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

Lab Sample ID: 400-167250-C-1-B MS ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0490		mg/L		98	75 - 125
Arsenic	0.00079	I	0.0500	0.0545		mg/L		107	75 - 125
Barium	0.060		0.0500	0.109		mg/L		97	75 - 125
Beryllium	0.0012	I	0.0500	0.0492		mg/L		96	75 - 125
Boron	9.0	L	0.100	8.76	L J3	mg/L		-254	75 - 125
Cadmium	0.00034	U	0.0500	0.0479		mg/L		96	75 - 125
Calcium	270	L	5.00	271	L J3	mg/L		36	75 - 125
Chromium	0.0011	U	0.0500	0.0510		mg/L		102	75 - 125

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

Lab Sample ID: 400-167250-C-1-B MS ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0513		mg/L		103	75 - 125
Lead	0.00035	U	0.0500	0.0521		mg/L		104	75 - 125
Lithium	0.017		0.0500	0.0671		mg/L		100	75 - 125
Molybdenum	0.0020	U	0.0500	0.0538		mg/L		108	75 - 125
Selenium	0.00071	U	0.0500	0.0202	J3	mg/L		40	75 - 125
Thallium	0.000085	U	0.0100	0.00940		mg/L		94	75 - 125

Lab Sample ID: 400-167250-C-1-C MSD ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 434664

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0500		mg/L		100	75 - 125	2	20
Arsenic	0.00079	I	0.0500	0.0566		mg/L		112	75 - 125	4	20
Barium	0.060		0.0500	0.114		mg/L		107	75 - 125	5	20
Beryllium	0.0012	I	0.0500	0.0504		mg/L		98	75 - 125	2	20
Boron	9.0	L	0.100	9.32	L J3	mg/L		314	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0486		mg/L		97	75 - 125	2	20
Calcium	270	L	5.00	281	L J3	mg/L		240	75 - 125	4	20
Chromium	0.0011	U	0.0500	0.0535		mg/L		107	75 - 125	5	20
Cobalt	0.00040	U	0.0500	0.0532		mg/L		106	75 - 125	4	20
Lead	0.00035	U	0.0500	0.0548		mg/L		110	75 - 125	5	20
Lithium	0.017		0.0500	0.0674		mg/L		101	75 - 125	0	20
Molybdenum	0.0020	U	0.0500	0.0564		mg/L		113	75 - 125	5	20
Selenium	0.00071	U	0.0500	0.0201	J3	mg/L		40	75 - 125	0	20
Thallium	0.000085	U	0.0100	0.00960		mg/L		96	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-434726/14-A
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434726

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/26/19 14:12	03/28/19 10:39	1

Lab Sample ID: LCS 400-434726/15-A
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000936		mg/L		93	80 - 120

Lab Sample ID: 400-167559-K-1-D MS
Matrix: Water
Analysis Batch: 435076

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 434726

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00169		mg/L		84	80 - 120

Lab Sample ID: 400-167559-K-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 435076 — **Prep Batch: 434726**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00141	J3	mg/L		70	80 - 120	18	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-433367/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 433367

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/14/19 13:45	1

Lab Sample ID: LCS 400-433367/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 433367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-167255-1 DU — **Client Sample ID: MW-02**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 433367

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	72		70.0		mg/L		3	5

Lab Sample ID: 400-167255-3 DU — **Client Sample ID: MW-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 433367

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	440		424		mg/L		3	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-434873/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 434873

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			03/27/19 09:36	1

Lab Sample ID: LCS 400-434873/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 434873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.8		mg/L		103	90 - 110

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MRL 400-434873/3
Matrix: Water
Analysis Batch: 434873

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.98	I	mg/L		99	50 - 150		

Lab Sample ID: 400-167250-A-3 MS
Matrix: Water
Analysis Batch: 434873

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	3300		10.0	3250	J3	mg/L		-480	73 - 120		

Lab Sample ID: 400-167250-A-3 MSD
Matrix: Water
Analysis Batch: 434873

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3300		10.0	3300	J3	mg/L		-26	73 - 120	1	8

Lab Sample ID: 400-167730-A-1 MS
Matrix: Water
Analysis Batch: 434873

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1.4	U	10.0	12.5	J3	mg/L		125	73 - 120		

Lab Sample ID: 400-167730-A-1 MSD
Matrix: Water
Analysis Batch: 434873

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.4	U	10.0	12.6	J3	mg/L		126	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-434905/3
Matrix: Water
Analysis Batch: 434905

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/27/19 12:58	1

Lab Sample ID: LCS 400-434905/4
Matrix: Water
Analysis Batch: 434905

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 660-93285-B-7 MS
Matrix: Water
Analysis Batch: 434905

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.23		1.00	0.810	J3	mg/L		58	75 - 125

Lab Sample ID: 660-93285-B-7 MSD
Matrix: Water
Analysis Batch: 434905

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.23		1.00	0.790	J3	mg/L		56	75 - 125	3	4

Lab Sample ID: 400-167250-A-2 DU
Matrix: Water
Analysis Batch: 434905

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-434753/6
Matrix: Water
Analysis Batch: 434753

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/26/19 14:04	1

Lab Sample ID: LCS 400-434753/7
Matrix: Water
Analysis Batch: 434753

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.1		mg/L		101	90 - 110

Lab Sample ID: MRL 400-434753/3
Matrix: Water
Analysis Batch: 434753

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.02		mg/L		100	50 - 150

Lab Sample ID: 400-167255-1 MS
Matrix: Water
Analysis Batch: 434753

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.2		10.0	14.7		mg/L		95	77 - 128

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-167255-1 MSD
Matrix: Water
Analysis Batch: 434753

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	5.2		10.0	14.7		mg/L		95	77 - 128	0	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rick Hagendorfer / Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82848-23565.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #:			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Florida	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-167255 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-02	3-11-19	0845	G	Water			X	X	X			
MW-03	3-11-19	1104	G	Water			X	X	X			
MW-12	3-11-19	1409	G	Water			X	X	X			
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
TNW bmw	3/13/19 0850	RDH	Kathy R Allen	3/13/19 850	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.1c, 0.8c, 0.9c, 0.4c, 0.7c IR

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167255-1

Login Number: 167255
List Number: 1
Creator: Brown, Nathan

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C, 0.8°C, 0.9°C, 0.4°C, 0.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

TestAmerica Job ID: 400-167255-1

Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-167255-2
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/25/2019 10:55:52 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-167255-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-167255-2

RAD

Method(s) 9315: Radium-226 Prep Batch 160-419788. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-02 (400-167255-1), MW-03 (400-167255-2), MW-12 (400-167255-3), (LCS 160-419788/1-A), (MB 160-419788/24-A), (240-109108-H-9-A), (240-109108-A-9-A MS) and (240-109108-A-9-B MSD)

Method(s) 9320: Ra-228 Prep Batch 160-419798. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-02 (400-167255-1), MW-03 (400-167255-2), MW-12 (400-167255-3), (LCS 160-419798/1-A), (MB 160-419798/24-A), (240-109108-H-9-B), (240-109108-A-9-C MS) and (240-109108-A-9-D MSD)

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Client Sample ID: MW-02 — Lab Sample ID: 400-167255-1

No Detections.

Client Sample ID: MW-03 — Lab Sample ID: 400-167255-2

No Detections.

Client Sample ID: MW-12 — Lab Sample ID: 400-167255-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-167255-1	MW-02	Water	03/11/19 08:45	03/13/19 08:50
400-167255-2	MW-03	Water	03/11/19 11:04	03/13/19 08:50
400-167255-3	MW-12	Water	03/11/19 14:09	03/13/19 08:50

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Client Sample ID: MW-02

Date Collected: 03/11/19 08:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.703**		0.155	0.168	1.00	0.109	pCi/L	03/18/19 11:43	04/15/19 18:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0739	U	0.204	0.204	1.00	0.354	pCi/L	03/18/19 12:28	04/03/19 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*
Y Carrier	*92.0*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.777**		0.256	0.264	5.00	0.354	pCi/L		04/22/19 16:39	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Client Sample ID: MW-03

Date Collected: 03/11/19 11:04
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.02**		0.180	0.202	1.00	0.0961	pCi/L	03/18/19 11:43	04/15/19 18:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.215	U	0.226	0.227	1.00	0.368	pCi/L	03/18/19 12:28	04/03/19 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*
Y Carrier	*87.5*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.24**		0.289	0.304	5.00	0.368	pCi/L		04/22/19 16:39	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Client Sample ID: MW-12

Date Collected: 03/11/19 14:09
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.48		0.220	0.257	1.00	0.114	pCi/L	03/18/19 11:43	04/15/19 18:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.448		0.243	0.247	1.00	0.360	pCi/L	03/18/19 12:28	04/03/19 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*
Y Carrier	*90.5*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.93		0.328	0.356	5.00	0.360	pCi/L		04/22/19 16:39	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Client Sample ID: MW-02
Date Collected: 03/11/19 08:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:56	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422457	04/03/19 09:27	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: MW-03
Date Collected: 03/11/19 11:04
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:56	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422457	04/03/19 09:27	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: MW-12
Date Collected: 03/11/19 14:09
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167255-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:56	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422457	04/03/19 09:27	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Rad

Prep Batch: 419788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	PrecSep-21	
400-167255-2	MW-03	Total/NA	Water	PrecSep-21	
400-167255-3	MW-12	Total/NA	Water	PrecSep-21	
MB 160-419788/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-419788/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-109108-A-9-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-109108-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 419798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167255-1	MW-02	Total/NA	Water	PrecSep_0	
400-167255-2	MW-03	Total/NA	Water	PrecSep_0	
400-167255-3	MW-12	Total/NA	Water	PrecSep_0	
MB 160-419798/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-419798/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-109108-A-9-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-109108-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-419788/24-A
Matrix: Water
Analysis Batch: 423899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419788

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.004257	U	0.0314	0.0314	1.00	0.0726	pCi/L	03/18/19 11:43	04/15/19 21:33	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/18/19 11:43*	*04/15/19 21:33*	*1*

Lab Sample ID: LCS 160-419788/1-A
Matrix: Water
Analysis Batch: 424032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419788

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.031		0.936	1.00	0.0722	pCi/L	80	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*

Lab Sample ID: 240-109108-A-9-A MS
Matrix: Water
Analysis Batch: 423847

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 419788

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.282		11.4	9.862		1.02	1.00	0.0717	pCi/L	84	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*

Lab Sample ID: 240-109108-A-9-B MSD
Matrix: Water
Analysis Batch: 423847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 419788

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.282		11.3	10.14		1.06	1.00	0.0846	pCi/L	87	75 - 138	0.13	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-419798/24-A
Matrix: Water
Analysis Batch: 422476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419798

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2727	U	0.187	0.188	1.00	0.285	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110	03/18/19 12:28	04/03/19 09:28	1
Y Carrier	93.5		40 - 110	03/18/19 12:28	04/03/19 09:28	1

Lab Sample ID: LCS 160-419798/1-A
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419798

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.34	8.869		1.03	1.00	0.334	pCi/L	95	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	86.7		40 - 110

Lab Sample ID: 240-109108-A-9-C MS
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 419798

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.546		9.33	9.426		1.10	1.00	0.425	pCi/L	95	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	92.6		40 - 110
Y Carrier	91.6		40 - 110

Lab Sample ID: 240-109108-A-9-D MSD
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 419798

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.546		9.33	9.444		1.11	1.00	0.422	pCi/L	95	45 - 150	0.01	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	87.9		40 - 110
Y Carrier	90.8		40 - 110

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rick Hagendorfer / Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82848-23565.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #:			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Florida	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-167255 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-02	3-11-19	0845	G	Water			X	X	X			
MW-03	3-11-19	1104	G	Water			X	X	X			
MW-12	3-11-19	1409	G	Water			X	X	X			
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
TNW bmw	3/13/19 0850	RDH	Kathy R Avery	3/13/19 850	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.1c, 0.8c, 0.9c, 0.4c, 0.7c IR

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167255-2

Login Number: 167255
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C, 0.8°C, 0.9°C, 0.4°C, 0.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167255-2

Login Number: 167255
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/15/19 10:35 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-167255-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-167259-1
Client Project/Site: CCR Smith Plant Delineation

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/9/2019 9:18:24 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-167259-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-167259-1

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 434669 and analytical batch 434847 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: PZ-11D (400-167259-2). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 435153 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWI-12A (400-167259-1), PZ-11D (400-167259-2), PZ-14 (400-167259-3), PZ-13D (400-167259-4), DUP-02 (400-167259-5), (400-167259-A-1 MS), (400-167259-A-1 MSD), (400-167978-G-13), (400-167978-G-13 MS) and (400-167978-G-13 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 435592 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample the MS/MSD were diluted after the spike. The spike amounts were adjusted by the dilution factor. (400-167259-A-1 MS), (400-167259-A-1 MSD), (400-167978-G-13 MS) and (400-167978-G-13 MSD)

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWI-12A (400-167259-1), PZ-11D (400-167259-2), PZ-14 (400-167259-3), PZ-13D (400-167259-4), DUP-02 (400-167259-5), (400-167809-C-1), (400-167809-C-1 MS) and (400-167809-C-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: MWI-12A — Lab Sample ID: 400-167259-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00048	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.052		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.7		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	38		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0069		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.021		0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	430		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	140		10	7.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	75		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	6.04				SU	1		Field Sampling	Total/NA
Field Temperature	18.53				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.43				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	686.69				uS/cm	1		Field Sampling	Total/NA
Turbidity	1.63				NTU	1		Field Sampling	Total/NA

Client Sample ID: PZ-11D — Lab Sample ID: 400-167259-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.098		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.67		0.050	0.021	mg/L	5		6020	Total Recoverable
Lithium	0.026		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Calcium - DL	220		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	3900		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	1700		120	84	mg/L	60		SM 4500 Cl- E	Total/NA
Fluoride	0.20		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	170		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.79				SU	1		Field Sampling	Total/NA
Field Temperature	22.70				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.09				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	5996.08				uS/cm	1		Field Sampling	Total/NA
Turbidity	4.16				NTU	1		Field Sampling	Total/NA

Client Sample ID: PZ-14 — Lab Sample ID: 400-167259-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0058		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.15		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	13		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium	700		5.0	2.5	mg/L	100		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample ID: PZ-14 (Continued) — Lab Sample ID: 400-167259-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0011	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8500		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	3800		160	110	mg/L	80		SM 4500 Cl- E	Total/NA
Fluoride	0.43		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	870		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.38				SU	1		Field Sampling	Total/NA
Field Temperature	21.18				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.16				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	12766.96				uS/cm	1		Field Sampling	Total/NA
Turbidity	2.50				NTU	1		Field Sampling	Total/NA

Client Sample ID: PZ-13D — Lab Sample ID: 400-167259-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0023	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	13		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium	860		5.0	2.5	mg/L	100		6020	Total Recoverable
Lithium	0.019		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8100		250	170	mg/L	1		SM 2540C	Total/NA
Chloride	4500		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	1100		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	4.52				SU	1		Field Sampling	Total/NA
Field Temperature	23.59				Centigrade	1		Field Sampling	Total/NA
Dissolved Oxygen	0.11				mg/L	1		Field Sampling	Total/NA
Specific Conductivity	14056.10				uS/cm	1		Field Sampling	Total/NA
Turbidity	2.35				NTU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-167259-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00059	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	39		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0054		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.021		0.015	0.0020	mg/L	5		6020	Total Recoverable
Boron - RA	1.6		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	420		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	140		10	7.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	75		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: FB-02 — Lab Sample ID: 400-167259-6

No Detections.

Client Sample ID: EB-02 — Lab Sample ID: 400-167259-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0013	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-167259-1	MWI-12A	Water	03/12/19 13:19	03/13/19 08:50
400-167259-2	PZ-11D	Water	03/11/19 14:05	03/13/19 08:50
400-167259-3	PZ-14	Water	03/12/19 15:40	03/13/19 08:50
400-167259-4	PZ-13D	Water	03/12/19 12:25	03/13/19 08:50
400-167259-5	DUP-02	Water	03/12/19 07:00	03/13/19 08:50
400-167259-6	FB-02	Water	03/12/19 14:35	03/13/19 08:50
400-167259-7	EB-02	Water	03/12/19 14:45	03/13/19 08:50

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: MWI-12A

Date Collected: 03/12/19 13:19
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00048	I	0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 22:56	5
Barium	0.052		0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 22:56	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 22:56	5
Boron	1.7		0.050	0.021	mg/L		03/26/19 10:52	03/26/19 22:56	5
Calcium	38		0.25	0.13	mg/L		03/26/19 10:52	03/26/19 22:56	5
Chromium	0.0012	I	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 22:56	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 22:56	5
Lithium	0.0069		0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 22:56	5
Molybdenum	0.021		0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 22:56	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 22:56	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		5.0	3.4	mg/L			03/19/19 13:25	1
Chloride	140		10	7.0	mg/L			04/02/19 12:47	5
Fluoride	0.060	I	0.10	0.032	mg/L			03/29/19 10:36	1
Sulfate	75		25	7.0	mg/L			03/27/19 16:02	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.04				SU			03/12/19 13:19	1
Field Temperature	18.53				Centigrade			03/12/19 13:19	1
Dissolved Oxygen	0.43				mg/L			03/12/19 13:19	1
Specific Conductivity	686.69				uS/cm			03/12/19 13:19	1
Turbidity	1.63				NTU			03/12/19 13:19	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: PZ-11D

Date Collected: 03/11/19 14:05
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 23:00	5
Barium	**0.098**		0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 23:00	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 23:00	5
Boron	**0.67**		0.050	0.021	mg/L		03/26/19 10:52	03/26/19 23:00	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 23:00	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 23:00	5
Lithium	**0.026**		0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 23:00	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 23:00	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 23:00	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**220**		2.5	1.3	mg/L		03/26/19 10:52	03/27/19 15:51	50

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3900**		50	34	mg/L			03/14/19 13:45	1
Chloride	**1700**		120	84	mg/L			04/02/19 12:49	60
Fluoride	**0.20**		0.10	0.032	mg/L			03/29/19 10:32	1
Sulfate	**170**		50	14	mg/L			03/27/19 16:02	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.79**				SU			03/11/19 14:05	1
Field Temperature	**22.70**				Centigrade			03/11/19 14:05	1
Dissolved Oxygen	**0.09**				mg/L			03/11/19 14:05	1
Specific Conductivity	**5996.08**				uS/cm			03/11/19 14:05	1
Turbidity	**4.16**				NTU			03/11/19 14:05	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: PZ-14

Date Collected: 03/12/19 15:40
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0058		0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 23:03	5
Barium	0.15		0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 23:03	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 23:03	5
Boron	13		1.0	0.42	mg/L		03/26/19 10:52	03/27/19 08:57	100
Calcium	700		5.0	2.5	mg/L		03/26/19 10:52	03/27/19 08:57	100
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 23:03	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 23:03	5
Lithium	0.0011	I	0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 23:03	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 23:03	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 23:03	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8500		130	85	mg/L			03/19/19 13:25	1
Chloride	3800		160	110	mg/L			04/02/19 13:33	80
Fluoride	0.43		0.10	0.032	mg/L			03/29/19 10:24	1
Sulfate	870		150	42	mg/L			03/27/19 16:02	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.38				SU			03/12/19 15:40	1
Field Temperature	21.18				Centigrade			03/12/19 15:40	1
Dissolved Oxygen	0.16				mg/L			03/12/19 15:40	1
Specific Conductivity	12766.96				uS/cm			03/12/19 15:40	1
Turbidity	2.50				NTU			03/12/19 15:40	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: PZ-13D

Date Collected: 03/12/19 12:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0010**	**I**	0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 23:07	5
Barium	**0.050**		0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 23:07	5
Beryllium	**0.0023**	**I**	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 23:07	5
Boron	**13**		1.0	0.42	mg/L		03/26/19 10:52	03/27/19 09:00	100
Calcium	**860**		5.0	2.5	mg/L		03/26/19 10:52	03/27/19 09:00	100
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 23:07	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 23:07	5
Lithium	**0.019**		0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 23:07	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 23:07	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 23:07	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8100**		250	170	mg/L			03/19/19 13:25	1
Chloride	**4500**		200	140	mg/L			04/02/19 13:33	100
Fluoride	0.032	U	0.10	0.032	mg/L			03/29/19 10:12	1
Sulfate	**1100**		250	70	mg/L			03/27/19 16:25	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.52**				SU			03/12/19 12:25	1
Field Temperature	**23.59**				Centigrade			03/12/19 12:25	1
Dissolved Oxygen	**0.11**				mg/L			03/12/19 12:25	1
Specific Conductivity	**14056.10**				uS/cm			03/12/19 12:25	1
Turbidity	**2.35**				NTU			03/12/19 12:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: DUP-02

Date Collected: 03/12/19 07:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00059**	**I**	0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 23:11	5
Barium	**0.053**		0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 23:11	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 23:11	5
Calcium	**39**		0.25	0.13	mg/L		03/26/19 10:52	03/26/19 23:11	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 23:11	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 23:11	5
Lithium	**0.0054**		0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 23:11	5
Molybdenum	**0.021**		0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 23:11	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 23:11	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.050	0.021	mg/L		03/26/19 10:52	03/27/19 09:08	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**420**		5.0	3.4	mg/L			03/19/19 13:25	1
Chloride	**140**		10	7.0	mg/L			04/02/19 12:49	5
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			03/29/19 10:40	1
Sulfate	**75**		25	7.0	mg/L			03/27/19 16:34	5

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: FB-02

Date Collected: 03/12/19 14:35
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 23:14	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 23:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 23:14	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:52	03/26/19 23:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 23:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 23:14	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 23:14	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 23:14	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 23:14	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:52	03/27/19 09:04	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/19/19 13:25	1
Chloride	1.4	U	2.0	1.4	mg/L			04/02/19 12:00	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/29/19 10:44	1
Sulfate	1.4	U	5.0	1.4	mg/L			04/01/19 14:42	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: EB-02

Date Collected: 03/12/19 14:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:52	03/26/19 23:37	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:52	03/26/19 23:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/26/19 23:37	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:52	03/26/19 23:37	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:52	03/26/19 23:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/26/19 23:37	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/26/19 23:37	5
Lithium	**0.0013**	**I**	0.0050	0.0011	mg/L		03/26/19 10:52	03/26/19 23:37	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:52	03/26/19 23:37	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/26/19 23:37	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/19/19 13:25	1
Chloride	1.4	U	2.0	1.4	mg/L			04/02/19 12:00	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/29/19 10:48	1
Sulfate	1.4	U	5.0	1.4	mg/L			04/01/19 14:42	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: MWI-12A
Date Collected: 03/12/19 13:19
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 22:56	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	435592	04/02/19 12:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:36	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	434937	03/27/19 16:02	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/12/19 13:19	AW	TAL PEN

Client Sample ID: PZ-11D
Date Collected: 03/11/19 14:05
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 23:00	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	50	435022	03/27/19 15:51	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433367	03/14/19 13:45	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		60	435592	04/02/19 12:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:32	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	434937	03/27/19 16:02	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/11/19 14:05	AW	TAL PEN

Client Sample ID: PZ-14
Date Collected: 03/12/19 15:40
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 23:03	DRE	TAL PEN
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		100	434847	03/27/19 08:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		80	435592	04/02/19 13:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:24	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	434937	03/27/19 16:02	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/12/19 15:40	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: PZ-13D

Lab Sample ID: 400-167259-4

Date Collected: 03/12/19 12:25

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 23:07	DRE	TAL PEN
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		100	434847	03/27/19 09:00	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	435592	04/02/19 13:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	434937	03/27/19 16:25	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	434567	03/12/19 12:25	AW	TAL PEN

Client Sample ID: DUP-02

Lab Sample ID: 400-167259-5

Date Collected: 03/12/19 07:00

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 23:11	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	434847	03/27/19 09:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	435592	04/02/19 12:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:40	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	434937	03/27/19 16:34	RRC	TAL PEN

Client Sample ID: FB-02

Lab Sample ID: 400-167259-6

Date Collected: 03/12/19 14:35

Matrix: Water

Date Received: 03/13/19 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 23:14	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020	RA	5	434847	03/27/19 09:04	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	435592	04/02/19 12:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:44	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	435477	04/01/19 14:42	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-1

Client Sample ID: EB-02

Date Collected: 03/12/19 14:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			434669	03/26/19 10:52	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	434847	03/26/19 23:37	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	433847	03/19/19 13:25	NT	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	435592	04/02/19 12:00	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	435153	03/29/19 10:48	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	435477	04/01/19 14:42	RRC	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 434669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total Recoverable	Water	3005A	
400-167259-2 - DL	PZ-11D	Total Recoverable	Water	3005A	
400-167259-2	PZ-11D	Total Recoverable	Water	3005A	
400-167259-3	PZ-14	Total Recoverable	Water	3005A	
400-167259-4	PZ-13D	Total Recoverable	Water	3005A	
400-167259-5	DUP-02	Total Recoverable	Water	3005A	
400-167259-5 - RA	DUP-02	Total Recoverable	Water	3005A	
400-167259-6	FB-02	Total Recoverable	Water	3005A	
400-167259-6 - RA	FB-02	Total Recoverable	Water	3005A	
400-167259-7	EB-02	Total Recoverable	Water	3005A	
MB 400-434669/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-434669/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-167537-E-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-167537-E-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 434847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total Recoverable	Water	6020	434669
400-167259-2	PZ-11D	Total Recoverable	Water	6020	434669
400-167259-3	PZ-14	Total Recoverable	Water	6020	434669
400-167259-3	PZ-14	Total Recoverable	Water	6020	434669
400-167259-4	PZ-13D	Total Recoverable	Water	6020	434669
400-167259-4	PZ-13D	Total Recoverable	Water	6020	434669
400-167259-5	DUP-02	Total Recoverable	Water	6020	434669
400-167259-5 - RA	DUP-02	Total Recoverable	Water	6020	434669
400-167259-6	FB-02	Total Recoverable	Water	6020	434669
400-167259-6 - RA	FB-02	Total Recoverable	Water	6020	434669
400-167259-7	EB-02	Total Recoverable	Water	6020	434669
MB 400-434669/1-A ^5	Method Blank	Total Recoverable	Water	6020	434669
LCS 400-434669/2-A	Lab Control Sample	Total Recoverable	Water	6020	434669
400-167537-E-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	434669
400-167537-E-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	434669

Analysis Batch: 435022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-2 - DL	PZ-11D	Total Recoverable	Water	6020	434669

General Chemistry

Analysis Batch: 433367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-2	PZ-11D	Total/NA	Water	SM 2540C	
MB 400-433367/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-433367/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-167255-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 433847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	SM 2540C	
400-167259-3	PZ-14	Total/NA	Water	SM 2540C	
400-167259-4	PZ-13D	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 433847 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-5	DUP-02	Total/NA	Water	SM 2540C	
400-167259-6	FB-02	Total/NA	Water	SM 2540C	
400-167259-7	EB-02	Total/NA	Water	SM 2540C	
MB 400-433847/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-433847/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-167226-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	
400-167226-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 434937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	SM 4500 SO4 E	
400-167259-2	PZ-11D	Total/NA	Water	SM 4500 SO4 E	
400-167259-3	PZ-14	Total/NA	Water	SM 4500 SO4 E	
400-167259-4	PZ-13D	Total/NA	Water	SM 4500 SO4 E	
400-167259-5	DUP-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-434937/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-434937/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-434937/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167809-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167809-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 435153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	SM 4500 F C	
400-167259-2	PZ-11D	Total/NA	Water	SM 4500 F C	
400-167259-3	PZ-14	Total/NA	Water	SM 4500 F C	
400-167259-4	PZ-13D	Total/NA	Water	SM 4500 F C	
400-167259-5	DUP-02	Total/NA	Water	SM 4500 F C	
400-167259-6	FB-02	Total/NA	Water	SM 4500 F C	
400-167259-7	EB-02	Total/NA	Water	SM 4500 F C	
MB 400-435153/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-435153/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-93398-C-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-93398-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-167259-3 DU	PZ-14	Total/NA	Water	SM 4500 F C	

Analysis Batch: 435477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-6	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-167259-7	EB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-435477/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-435477/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-435477/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167578-M-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167578-M-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 435592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	SM 4500 Cl- E	
400-167259-2	PZ-11D	Total/NA	Water	SM 4500 Cl- E	
400-167259-3	PZ-14	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 435592 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-4	PZ-13D	Total/NA	Water	SM 4500 Cl- E	
400-167259-5	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-167259-6	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-167259-7	EB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-435592/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-435592/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-435592/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-167259-1 MS	MWI-12A	Total/NA	Water	SM 4500 Cl- E	
400-167259-1 MSD	MWI-12A	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 434567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	Field Sampling	
400-167259-2	PZ-11D	Total/NA	Water	Field Sampling	
400-167259-3	PZ-14	Total/NA	Water	Field Sampling	
400-167259-4	PZ-13D	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-434669/1-A ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 434669

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/26/19 10:52	03/27/19 08:49	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/26/19 10:52	03/27/19 08:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/26/19 10:52	03/27/19 08:49	5
Boron	0.021	U	0.050	0.021	mg/L		03/26/19 10:52	03/27/19 08:49	5
Calcium	0.13	U	0.25	0.13	mg/L		03/26/19 10:52	03/27/19 08:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/26/19 10:52	03/27/19 08:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/26/19 10:52	03/27/19 08:49	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/26/19 10:52	03/27/19 08:49	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/26/19 10:52	03/27/19 08:49	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/26/19 10:52	03/27/19 08:49	5

Lab Sample ID: LCS 400-434669/2-A
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 434669

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0534		mg/L		107	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Beryllium	0.0500	0.0496		mg/L		99	80 - 120
Boron	0.100	0.0977		mg/L		98	80 - 120
Calcium	5.00	5.05		mg/L		101	80 - 120
Chromium	0.0500	0.0524		mg/L		105	80 - 120
Cobalt	0.0500	0.0534		mg/L		107	80 - 120
Lithium	0.0500	0.0526		mg/L		105	80 - 120
Molybdenum	0.0500	0.0514		mg/L		103	80 - 120
Selenium	0.0500	0.0483		mg/L		97	80 - 120

Lab Sample ID: 400-167537-E-1-B MS ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 434669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00046	U	0.0500	0.0529		mg/L		106	75 - 125
Barium	0.084		0.0500	0.140		mg/L		113	75 - 125
Beryllium	0.00034	U	0.0500	0.0476		mg/L		95	75 - 125
Boron	0.021	U	0.100	0.164	J3	mg/L		164	75 - 125
Calcium	48		5.00	58.7	J3	mg/L		213	75 - 125
Chromium	0.0043		0.0500	0.0505		mg/L		92	75 - 125
Cobalt	0.00040	U	0.0500	0.0514		mg/L		103	75 - 125
Lithium	0.0064		0.0500	0.0552		mg/L		98	75 - 125
Molybdenum	0.0020	U	0.0500	0.0498		mg/L		100	75 - 125
Selenium	0.0019		0.0500	0.0490		mg/L		94	75 - 125

Lab Sample ID: 400-167537-E-1-C MSD ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 434669

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00046	U	0.0500	0.0578		mg/L		116	75 - 125	9	20

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

Lab Sample ID: 400-167537-E-1-C MSD ^5
Matrix: Water
Analysis Batch: 434847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 434669

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.084		0.0500	0.156	J3	mg/L		144	75 - 125	11	20
Beryllium	0.00034	U	0.0500	0.0485		mg/L		97	75 - 125	2	20
Boron	0.021	U	0.100	0.167	J3	mg/L		167	75 - 125	2	20
Calcium	48		5.00	63.0	J3	mg/L		298	75 - 125	7	20
Chromium	0.0043		0.0500	0.0550		mg/L		101	75 - 125	9	20
Cobalt	0.00040	U	0.0500	0.0570		mg/L		114	75 - 125	10	20
Lithium	0.0064		0.0500	0.0561		mg/L		100	75 - 125	2	20
Molybdenum	0.0020	U	0.0500	0.0579		mg/L		116	75 - 125	15	20
Selenium	0.0019		0.0500	0.0493		mg/L		95	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-433367/1
Matrix: Water
Analysis Batch: 433367

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/14/19 13:45	1

Lab Sample ID: LCS 400-433367/2
Matrix: Water
Analysis Batch: 433367

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	270		mg/L		92	78 - 122

Lab Sample ID: 400-167255-A-1 DU
Matrix: Water
Analysis Batch: 433367

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	72		70.0		mg/L		3	5

Lab Sample ID: MB 400-433847/1
Matrix: Water
Analysis Batch: 433847

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/19/19 13:25	1

Lab Sample ID: LCS 400-433847/2
Matrix: Water
Analysis Batch: 433847

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	252		mg/L		86	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-167226-A-2 DU
Matrix: Water
Analysis Batch: 433847

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	100		98.0		mg/L		2	5

Lab Sample ID: 400-167226-A-8 DU
Matrix: Water
Analysis Batch: 433847

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		116		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-435592/6
Matrix: Water
Analysis Batch: 435592

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			04/02/19 11:50	1

Lab Sample ID: LCS 400-435592/7
Matrix: Water
Analysis Batch: 435592

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.8		mg/L		106	90 - 110

Lab Sample ID: MRL 400-435592/3
Matrix: Water
Analysis Batch: 435592

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.73	I	mg/L		86	50 - 150

Lab Sample ID: 400-167259-1 MS
Matrix: Water
Analysis Batch: 435592

Client Sample ID: MWI-12A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	140		10.0	140	J3	mg/L		39	73 - 120

Lab Sample ID: 400-167259-1 MSD
Matrix: Water
Analysis Batch: 435592

Client Sample ID: MWI-12A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	140		10.0	139	J3	mg/L		33	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-435153/3
Matrix: Water
Analysis Batch: 435153

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/29/19 09:19	1

Lab Sample ID: LCS 400-435153/4
Matrix: Water
Analysis Batch: 435153

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 660-93398-C-3 MS
Matrix: Water
Analysis Batch: 435153

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.20		1.00	0.750	J3	mg/L		55	75 - 125		

Lab Sample ID: 660-93398-C-3 MSD
Matrix: Water
Analysis Batch: 435153

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.20		1.00	0.750	J3	mg/L		55	75 - 125	0	4

Lab Sample ID: 400-167259-3 DU
Matrix: Water
Analysis Batch: 435153

Client Sample ID: PZ-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.43			0.430		mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-434937/6
Matrix: Water
Analysis Batch: 434937

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/27/19 15:05	1

Lab Sample ID: LCS 400-434937/7
Matrix: Water
Analysis Batch: 434937

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	14.3		mg/L		95	90 - 110		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-434937/3
Matrix: Water
Analysis Batch: 434937

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.09	I	mg/L		82	50 - 150		

Lab Sample ID: 400-167809-C-1 MS
Matrix: Water
Analysis Batch: 434937

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	160		10.0	157	J3	mg/L		-42	77 - 128		

Lab Sample ID: 400-167809-C-1 MSD
Matrix: Water
Analysis Batch: 434937

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	160		10.0	157	J3	mg/L		-38	77 - 128	0	5

Lab Sample ID: MB 400-435477/6
Matrix: Water
Analysis Batch: 435477

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			04/01/19 14:01	1

Lab Sample ID: LCS 400-435477/7
Matrix: Water
Analysis Batch: 435477

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	13.9		mg/L		93	90 - 110		

Lab Sample ID: MRL 400-435477/3
Matrix: Water
Analysis Batch: 435477

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	3.84	I	mg/L		77	50 - 150		

Lab Sample ID: 400-167578-M-1 MS
Matrix: Water
Analysis Batch: 435477

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	14		10.0	23.7		mg/L		97	77 - 128		

Lab Sample ID: 400-167578-M-1 MSD
Matrix: Water
Analysis Batch: 435477

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	14		10.0	23.2		mg/L		93	77 - 128	2	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rick Hagendorfer / Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82850-31203.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #:			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant Delineation Sampling Event	Project #: 40006609			
Site:	SSOW#:			

Analysis Requested

400-167259 COC

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	FieldSampling - Field Sampling Parameters	6020 - As,Ba,B,Be,Ca,Cr,Co,Li,Mo,Se	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
MWI-12A	3-12-19	1319	G	Water			N	N		X		
PZ-11D	3-11-19	1405	G	Water			X	X		X		
PZ-14	3-12-19	1540	G	Water			N	X		X		
PZ-13D	3-12-19	1225	G	Water			N	X		X		
Dup-02	3-12-19	0700	G	Water			X	X		X		
FB-02	3-12-19	1435	G	Water			X	X		X		
EB-02	3-12-19	1445	G	Water			X	X		X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Trevor Braddock	3/13/19 0850	RDH	Kathy R Owen	3-13-19 850	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.1c, 0.8, 0.9, 0.4c, 0.7c IR2

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167259-1

Login Number: 167259
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C, 0.8°C, 0.9°C, 0.4°C, 0.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Job ID: 400-167259-1
Project/Site: CCR Smith Plant Delineation

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-167259-2
Client Project/Site: CCR Smith Plant Delineation

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/26/2019 12:15:49 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-167259-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-167259-2

RAD

Method(s) 9315: Radium-226 Prep Batch 160-419788: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MWI-12A (400-167259-1), PZ-11D (400-167259-2), PZ-14 (400-167259-3), PZ-13D (400-167259-4), DUP-02 (400-167259-5), (LCS 160-419788/1-A), (MB 160-419788/24-A), (240-109108-H-9-A), (240-109108-A-9-A MS) and (240-109108-A-9-B MSD)

Method(s) 9315: Radium-226 Prep Batch 160-421329: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. EB-02 (400-167259-7), (LCS 160-421329/1-A), (MB 160-421329/24-A), (400-166992-A-6-A) and (400-166992-A-6-B DU)

Method(s) 9315: Ra-226 Prep Batch 160-420714: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-02 (400-167259-6), (LCS 160-420714/1-A), (LCSD 160-420714/2-A) and (MB 160-420714/13-A)

Method(s) 9320: Ra-228 Prep Batch 160-419798: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MWI-12A (400-167259-1), PZ-11D (400-167259-2), PZ-14 (400-167259-3), PZ-13D (400-167259-4), DUP-02 (400-167259-5), (LCS 160-419798/1-A), (MB 160-419798/24-A), (240-109108-H-9-B), (240-109108-A-9-C MS) and (240-109108-A-9-D MSD)

Method(s) 9320: Ra-228 Prep Batch 160-421330: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. EB-02 (400-167259-7), (LCS 160-421330/1-A), (MB 160-421330/24-A), (400-166992-A-6-C) and (400-166992-A-6-D DU)

Method(s) 9320: Ra-228 Prep Batch 160-420719: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-02 (400-167259-6), (LCS 160-420719/1-A), (LCSD 160-420719/2-A) and (MB 160-420719/13-A)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-419798: The following samples produced a black precipitate after the Pb carrier was added PZ-14 (400-167259-3) and PZ-13D (400-167259-4) .The precipitate is most likely lead sulfide.

Method(s) PrecSep_0: Radium-228 Prep Batch 420719: Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-02 (400-167259-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-419788: The following samples produced a black precipitate after the Pb carrier was added PZ-14 (400-167259-3) and PZ-13D (400-167259-4) . The precipitate is most likely lead sulfide.

Method(s) PrecSep-21: Radium-226 Prep Batch 420714: Insufficient sample volume was available to perform a sample duplicate for the following samples: FB-02 (400-167259-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-167259-1	MWI-12A	Water	03/12/19 13:19	03/13/19 08:50
400-167259-2	PZ-11D	Water	03/11/19 14:05	03/13/19 08:50
400-167259-3	PZ-14	Water	03/12/19 15:40	03/13/19 08:50
400-167259-4	PZ-13D	Water	03/12/19 12:25	03/13/19 08:50
400-167259-5	DUP-02	Water	03/12/19 07:00	03/13/19 08:50
400-167259-6	FB-02	Water	03/12/19 14:35	03/13/19 08:50
400-167259-7	EB-02	Water	03/12/19 14:45	03/13/19 08:50

Client Sample ID: MWI-12A

Date Collected: 03/12/19 13:19
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	9.95		0.575	1.06	1.00	0.109	pCi/L	03/18/19 11:43	04/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.31		0.337	0.358	1.00	0.407	pCi/L	03/18/19 12:28	04/03/19 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*
Y Carrier	*89.3*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	11.3		0.666	1.12	5.00	0.407	pCi/L		04/22/19 16:39	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Client Sample ID: PZ-11D

Date Collected: 03/11/19 14:05
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.41		0.447	0.730	1.00	0.0940	pCi/L	03/18/19 11:43	04/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.308	0.322	1.00	0.400	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*
Y Carrier	*92.7*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	7.44		0.543	0.798	5.00	0.400	pCi/L		04/22/19 16:39	1

Client Sample ID: PZ-14

Date Collected: 03/12/19 15:40
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	8.69		0.518	0.939	1.00	0.103	pCi/L	03/18/19 11:43	04/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.4		0.746	1.29	1.00	0.402	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*
Y Carrier	*93.8*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	20.1		0.908	1.60	5.00	0.402	pCi/L		04/22/19 16:39	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Client Sample ID: PZ-13D
Date Collected: 03/12/19 12:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.18		0.404	0.617	1.00	0.0997	pCi/L	03/18/19 11:43	04/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	26.7		1.17	2.72	1.00	0.427	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*
Y Carrier	*86.4*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	31.9		1.24	2.79	5.00	0.427	pCi/L		04/22/19 16:39	1

Client Sample ID: DUP-02

Date Collected: 03/12/19 07:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	8.81		0.503	0.938	1.00	0.114	pCi/L	03/18/19 11:43	04/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/18/19 11:43*	*04/15/19 18:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.41		0.315	0.341	1.00	0.358	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*
Y Carrier	*89.7*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	10.2		0.593	0.998	5.00	0.358	pCi/L		04/22/19 16:39	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Client Sample ID: FB-02

Date Collected: 03/12/19 14:35
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0311	U	0.0665	0.0666	1.00	0.124	pCi/L	03/22/19 08:27	04/17/19 08:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*40 - 110*	*03/22/19 08:27*	*04/17/19 08:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.121	U	0.190	0.190	1.00	0.365	pCi/L	03/22/19 08:46	04/10/19 09:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*40 - 110*	*03/22/19 08:46*	*04/10/19 09:09*	*1*
Y Carrier	*93.5*		*40 - 110*	*03/22/19 08:46*	*04/10/19 09:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0899	U	0.201	0.201	5.00	0.365	pCi/L		04/22/19 16:39	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Client Sample ID: EB-02

Date Collected: 03/12/19 14:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00425	U	0.0419	0.0419	1.00	0.0877	pCi/L	03/26/19 17:36	04/17/19 21:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/26/19 17:36*	*04/17/19 21:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.104	U	0.298	0.298	1.00	0.513	pCi/L	03/26/19 18:03	04/02/19 15:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/26/19 18:03*	*04/02/19 15:50*	*1*
Y Carrier	*80.0*		*40 - 110*	*03/26/19 18:03*	*04/02/19 15:50*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.108	U	0.301	0.301	5.00	0.513	pCi/L		04/22/19 16:39	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Client Sample ID: MWI-12A
Date Collected: 03/12/19 13:19
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:57	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422457	04/03/19 09:27	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: PZ-11D
Date Collected: 03/11/19 14:05
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:57	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422476	04/03/19 09:28	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: PZ-14
Date Collected: 03/12/19 15:40
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:57	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422476	04/03/19 09:28	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: PZ-13D
Date Collected: 03/12/19 12:25
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:57	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422476	04/03/19 09:28	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Client Sample ID: DUP-02
Date Collected: 03/12/19 07:00
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419788	03/18/19 11:43	LTC	TAL SL
Total/NA	Analysis	9315		1	423835	04/15/19 18:57	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419798	03/18/19 12:28	LTC	TAL SL
Total/NA	Analysis	9320		1	422476	04/03/19 09:28	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: FB-02
Date Collected: 03/12/19 14:35
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			420714	03/22/19 08:27	HET	TAL SL
Total/NA	Analysis	9315		1	424264	04/17/19 08:19	BLH	TAL SL
Total/NA	Prep	PrecSep_0			420719	03/22/19 08:46	HET	TAL SL
Total/NA	Analysis	9320		1	423246	04/10/19 09:09	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Client Sample ID: EB-02
Date Collected: 03/12/19 14:45
Date Received: 03/13/19 08:50

Lab Sample ID: 400-167259-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			421329	03/26/19 17:36	CLP	TAL SL
Total/NA	Analysis	9315		1	424263	04/17/19 21:09	CDR	TAL SL
Total/NA	Prep	PrecSep_0			421330	03/26/19 18:03	CLP	TAL SL
Total/NA	Analysis	9320		1	422380	04/02/19 15:50	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	424973	04/22/19 16:39	BLH	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 419788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	PrecSep-21	
400-167259-2	PZ-11D	Total/NA	Water	PrecSep-21	
400-167259-3	PZ-14	Total/NA	Water	PrecSep-21	
400-167259-4	PZ-13D	Total/NA	Water	PrecSep-21	
400-167259-5	DUP-02	Total/NA	Water	PrecSep-21	
MB 160-419788/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-419788/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-109108-A-9-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-109108-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 419798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-1	MWI-12A	Total/NA	Water	PrecSep_0	
400-167259-2	PZ-11D	Total/NA	Water	PrecSep_0	
400-167259-3	PZ-14	Total/NA	Water	PrecSep_0	
400-167259-4	PZ-13D	Total/NA	Water	PrecSep_0	
400-167259-5	DUP-02	Total/NA	Water	PrecSep_0	
MB 160-419798/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-419798/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-109108-A-9-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-109108-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 420714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-6	FB-02	Total/NA	Water	PrecSep-21	
MB 160-420714/13-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-420714/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-420714/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 420719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-6	FB-02	Total/NA	Water	PrecSep_0	
MB 160-420719/13-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-420719/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-420719/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 421329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-7	EB-02	Total/NA	Water	PrecSep-21	
MB 160-421329/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-421329/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-166992-A-6-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 421330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-167259-7	EB-02	Total/NA	Water	PrecSep_0	
MB 160-421330/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-421330/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-166992-A-6-D DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-419788/24-A
Matrix: Water
Analysis Batch: 423899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419788

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.004257	U	0.0314	0.0314	1.00	0.0726	pCi/L	03/18/19 11:43	04/15/19 21:33	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/18/19 11:43*	*04/15/19 21:33*	*1*

Lab Sample ID: LCS 160-419788/1-A
Matrix: Water
Analysis Batch: 424032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419788

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.031		0.936	1.00	0.0722	pCi/L	80	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*

Lab Sample ID: 240-109108-A-9-A MS
Matrix: Water
Analysis Batch: 423847

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 419788

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.282		11.4	9.862		1.02	1.00	0.0717	pCi/L	84	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*

Lab Sample ID: 240-109108-A-9-B MSD
Matrix: Water
Analysis Batch: 423847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 419788

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.282		11.3	10.14		1.06	1.00	0.0846	pCi/L	87	75 - 138	0.13	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*

Lab Sample ID: MB 160-420714/13-A
Matrix: Water
Analysis Batch: 424264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420714

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08404	U	0.0846	0.0850	1.00	0.130	pCi/L	03/22/19 08:27	04/17/19 08:19	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-420714/13-A
Matrix: Water
Analysis Batch: 424264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420714

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110	03/22/19 08:27	04/17/19 08:19	1

Lab Sample ID: LCS 160-420714/1-A
Matrix: Water
Analysis Batch: 424313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420714

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.29		1.12	1.00	0.122	pCi/L	91	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.8		40 - 110

Lab Sample ID: LCSD 160-420714/2-A
Matrix: Water
Analysis Batch: 424313

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 420714

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	11.04		1.18	1.00	0.148	pCi/L	97	75 - 125	0.33	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.1		40 - 110

Lab Sample ID: MB 160-421329/24-A
Matrix: Water
Analysis Batch: 424263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 421329

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.006982	U	0.0478	0.0478	1.00	0.0946	pCi/L	03/26/19 17:36	04/17/19 21:09	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110	03/26/19 17:36	04/17/19 21:09	1

Lab Sample ID: LCS 160-421329/1-A
Matrix: Water
Analysis Batch: 424264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 421329

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.558		1.00	1.00	0.0791	pCi/L	84	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.9		40 - 110

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 400-166992-A-6-B DU
Matrix: Water
Analysis Batch: 424310

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 421329

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.365			0.2607		0.0955	1.00	0.0843	pCi/L			0.51	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*89.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-419798/24-A
Matrix: Water
Analysis Batch: 422476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419798

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2727	U	0.187	0.188	1.00	0.285	pCi/L	03/18/19 12:28	04/03/19 09:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*
Y Carrier	*93.5*		*40 - 110*	*03/18/19 12:28*	*04/03/19 09:28*	*1*

Lab Sample ID: LCS 160-419798/1-A
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419798

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.34	8.869		1.03	1.00	0.334	pCi/L	95	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*86.7*		*40 - 110*

Lab Sample ID: 240-109108-A-9-C MS
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 419798

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.546		9.33	9.426		1.10	1.00	0.425	pCi/L	95	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*
Y Carrier	*91.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-109108-A-9-D MSD
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 419798

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.546		9.33	9.444		1.11	1.00	0.422	pCi/L	95	45 - 150	0.01	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*
Y Carrier	*90.8*		*40 - 110*

Lab Sample ID: MB 160-420719/13-A
Matrix: Water
Analysis Batch: 423245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420719

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1055	U	0.210	0.210	1.00	0.358	pCi/L	03/22/19 08:46	04/10/19 09:07	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/22/19 08:46*	*04/10/19 09:07*	*1*
Y Carrier	*94.2*		*40 - 110*	*03/22/19 08:46*	*04/10/19 09:07*	*1*

Lab Sample ID: LCS 160-420719/1-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420719

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.31	8.506		1.00	1.00	0.419	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.8*		*40 - 110*
Y Carrier	*92.3*		*40 - 110*

Lab Sample ID: LCSD 160-420719/2-A
Matrix: Water
Analysis Batch: 423246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 420719

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.31	8.220		0.957	1.00	0.333	pCi/L	88	75 - 125	0.15	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.1*		*40 - 110*
Y Carrier	*93.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-421330/24-A
Matrix: Water
Analysis Batch: 422380

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 421330

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1904	U	0.234	0.235	1.00	0.388	pCi/L	03/26/19 18:03	04/02/19 15:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*03/26/19 18:03*	*04/02/19 15:51*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/26/19 18:03*	*04/02/19 15:51*	*1*

Lab Sample ID: LCS 160-421330/1-A
Matrix: Water
Analysis Batch: 422416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 421330

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.34	8.726		1.09	1.00	0.461	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*40 - 110*
Y Carrier	*74.4*		*40 - 110*

Lab Sample ID: 400-166992-A-6-D DU
Matrix: Water
Analysis Batch: 422365

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 421330

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.487			0.4352	U	0.290	1.00	0.441	pCi/L			0.09	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*89.1*		*40 - 110*
Y Carrier	*77.4*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rick Hayesdorfer / Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82850-31203.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #:			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant Delineation Sampling Event	Project #: 40006609			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

400-167259 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	FieldSampling - Field Sampling Parameters	6020 - As,Ba,B,Be,Ca,Cr,Co,Li,Mo,Se	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
MWI-12A	3-12-19	1319	G	Water			N	N		X		
PZ-11D	3-11-19	1405	G	Water			X	X		X		
PZ-14	3-12-19	1540	G	Water			N	X		X		
PZ-13D	3-12-19	1225	G	Water			N	X		X		
Dup-02	3-12-19	0700	G	Water			X	X		X		
FB-02	3-12-19	1435	G	Water			X	X		X		
EB-02	3-12-19	1445	G	Water			N	X		X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Trevor Braddock	3/13/19 0850	RDH	Kathy R Owen	3-13-19 850	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1, C, 0.9, 0.4, 0.7, IR

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167259-2

Login Number: 167259
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C, 0.8°C, 0.9°C, 0.4°C, 0.7°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-167259-2

Login Number: 167259
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/15/19 10:35 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Job ID: 400-167259-2
Project/Site: CCR Smith Plant Delineation

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant Delineation

Job ID: 400-167259-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

Geosyntec consultants

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Memorandum

Date:	May 22, 2019
To:	Lane Dorman
From:	Jennifer Pinion
	Kristoffer Henderson
CC:	J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-167250-1 Revision 1**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of eight aqueous samples, one field duplicate, one equipment blank, and one field blank collected 11-12 March 2019, as part of the Plant Smith sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Mercury by EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO^4 E
- Field pH

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-167250-1	MW-06
400-167250-2	MW-07
400-167250-3	MW-08
400-167250-4	MW-09
400-167250-5	MW-10
400-167250-6	MW-11

Laboratory ID	Client ID
400-167250-7	MW-13
400-167250-8	MW-14
400-167250-9	DUP-01
400-167250-10	FB-01
400-167250-11	EB-01

The laboratory report was revised on May 22, 2019 to correct TDS data errors. Incorrect sample volumes were used to calculate the sample concentrations for samples MW-14 and DUP-01. The revised report was identified as 400-167250-1 Revision 1.

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
⊗ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank

- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 434664). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample MW-06. The recovery and relative percent difference (RPD) results were within laboratory specified acceptance criteria, with the following exceptions.

The boron and calcium MS recoveries were low, and the MSD recoveries were high and outside the laboratory specified acceptance criteria in the MS/MSD pair. Since the boron and calcium concentrations were greater than four times the spiked concentrations, no qualifications were applied to the data.

The selenium recoveries in the MS/MSD pair using sample MW-06 were low and outside the laboratory specified acceptance criteria. Therefore, the non-detect selenium concentration was UJ qualified as estimated less than the MDL in sample MW-06.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
MW-06	Selenium	0.00071	U	0.00071	UJ	4

mg/L- milligram per liter
U-not detected at or above the MDL
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-02 was reported in laboratory report 440-167259-1. Metals were not detected in the equipment blanks above the MDLs, with the following exception.

Lithium was detected in equipment blank EB-02 at an estimated concentration greater than the MDL and less than the practical quantitation limit (PQL). Therefore, the estimated lithium concentration greater than the MDL and less than the PQL was U qualified as not detected at the PQL in the associated sample.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-14	Lithium	0.0011	I	0.0050	U	3

I – laboratory flag defined as the reported value is between the MDL and the laboratory PQL

1.7 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-02 was reported in laboratory report 440-167259-1. Metals were not detected in the field blanks above the MDLs.

1.8 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision [RPD $\leq$ 20% or difference < PQL] was demonstrated between the field duplicate and the original sample, MW-14.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 434726). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-02 was reported in laboratory report 440-167259-1. Mercury was not detected in the equipment blanks above the MDL.

2.7 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-02 was reported in laboratory report 440-167259-1. Mercury was not detected in the field blanks above the MDL.

2.8 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision (RPD $\leq$ 20% or difference < PQL) was demonstrated between the field duplicate and the original sample, MW-14.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO^4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
⊗ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

Samples DUP-01 and MW-14 were reanalyzed for TDS outside the holding time due to sample residue exceeding the method criteria. Both the original and reanalysis results were reported with the data. The reanalysis results were considered for validation, based on professional and technical judgment. Therefore, the TDS concentration in samples DUP-01 and MW-14 were J qualified as estimated. The original analysis results were designated as SECONDARY and the reanalysis results were designated as PRIMARY in the EDD.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
DUP-01	TDS	46000	Q	46000	J	2
MW-14	TDS	46000	Q	46000	J	2

mg/L-milligrams per liter
Q-laboratory flag indicating sample was analyzed outside the holding time

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 433367, 433847 and 433880; chloride batch 434873; sulfate batches 434700, 434753 and 434937; and fluoride batches 434093, 434792 and 434905). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride and sulfate using sample MW-08. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of chloride in the MS/MSD pair using sample MW-08 were low and outside the laboratory specified acceptance criteria. Since the chloride concentration in sample MW-08 was greater than four times the chloride spiked concentration, no qualifications were applied to the data, based on professional and technical judgement.

A batch MS/MSD pair were also reported for fluoride and sulfate. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

A sample set specific laboratory duplicate was reported for fluoride using sample MW-07. The RPD result was within the laboratory and SOP specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-02 was reported in laboratory report 440-167259-1. The wet chemistry parameters were not detected in the equipment blanks above the MDLs.

3.8 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-02 was reported in laboratory report 440-167259-1. The wet chemistry parameters were not detected in the field blanks above the MDLs.

3.9 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision (RPD $\leq$ 20% or difference < PQL) was demonstrated between the field duplicate and the original sample, MW-14.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date: May 13, 2019

To: Lane Dorman

From: Kristoffer Henderson

CC: J. Caprio

Subject: Stage 2A Data Validation - Level II Data Deliverable – TestAmerica Job ID 400-167250-2

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of eight aqueous samples, one field duplicate sample, one equipment blank and one field blank, collected 11-12 March 2019, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-167250-1	MW-06
400-167250-2	MW-07
400-167250-3	MW-08
400-167250-4	MW-09
400-167250-5	MW-10
400-167250-6	MW-11

Laboratory ID	Client ID
400-167250-7	MW-13
400-167250-8	MW-14
400-167250-9	DUP-01
400-167250-10	FB-01
400-167250-11	EB-01

The laboratory noted that the sample MW-09 was received at a pH of 7 outside the requirement that samples are preserved to a pH of < 2. The sample was preserved by the laboratory two days after sample receipt within the method requirement of preservation within five days. Therefore, no qualifications were applied to the data, based on professional and technical judgment. No other sample preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Carriers
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-226 data (batches 419788, 420733 and 420750) and three method blanks were reported for the radium-228 data (batches 419798, 420737 and 420752). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

One batch MS/MSD pair was reported for radium-226 and one batch MS/MSD pair was reported for radium-228. Since these were batch QC there was no impact on the data and qualifications were not applied.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS and two LCS/LCS duplicate (LCSD) pairs were reported for radium-226 and one LCS and two LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-02 was reported in laboratory report 440-167259-1. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs.

1.9 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-02 was reported in laboratory report 440-167259-1. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs.

1.10 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicate and the original sample MW-14.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

Samples MW-14, DUP-01, MW-07, MW-09, MW-10 and MW-11 were analyzed at reduced aliquots due to sample matrix for the radium-228 and radium-226 analyses.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II report and the EDD.

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* * * * *

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	May 10, 2019
To:	Lane Dorman
From:	Jennifer Pinion
CC:	J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-167255-1**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of three aqueous samples, collected 11 March 2019, as part of the Plant Smith sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Mercury by EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO^4 E
- Field pH

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-167255-1	MW-02
400-167255-2	MW-03

Laboratory ID	Client ID
400-167255-3	MW-12

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid

analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 434664). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-167250-1. Metals were not detected in the equipment blank above the MDLs.

1.7 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-167250-1. Metals were not detected in the field blank above the MDLs.

1.8 Field Duplicate

Field duplicates were not collected with the sample set.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 434726). Mercury was not detected in the method blank above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-167250-1. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank, FB-01, were collected with the sample set and reported in laboratory report 440-167250-1. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

Field duplicates were not collected with the sample set.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO^4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batch 433367, chloride batch 434873, sulfate batch 434753 and fluoride batch 434905). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported for sulfate using sample MW-02. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

Batch MS/MSD pair were also reported for chloride and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for TDS using samples MW-02 and MW-12. The RPD results were within the laboratory and SOP specified acceptance criteria.

Batch laboratory duplicates were also reported for fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-167250-1. The wet chemistry parameters were not detected in the equipment blank above the MDLs.

3.8 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-167250-1. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

Field duplicates were not collected with the sample set.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date: May 13, 2019

To: Lane Dorman

From: Kristoffer Henderson

CC: J. Caprio

Subject: Stage 2A Data Validation - Level II Data Deliverable – TestAmerica Job ID 400-167255-2

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of three aqueous samples, collected 11 March 2019, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental

Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-167255-1	MW-02
400-167255-2	MW-03

Laboratory ID	Client ID
400-167255-3	MW-12

No other preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-226 data (batch 419788) and one method blank was reported for the radium-228 data (batch 419798). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported for radium-226 and one batch MS/MSD pair was reported for radium-228. Since these were batch QC there was no impact on the data and qualifications were not applied.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported for radium-226 and one LCS was reported for radium-228. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Equipment Blank

One equipment blank was collected with the sample set, EB-01, reported in laboratory report 440-167250-2. Radium-226 and Radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank was collected with the sample set, FB-01, reported in laboratory report 440-167250-2. Radium-226 and Radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

A field duplicate was not collected with the sample set.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	May 10, 2019
To:	Lane Dorman
From:	Jennifer Pinion
CC:	J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-167259-1**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four aqueous samples, one field duplicate, one equipment blank, and one field blank collected 11-12 March 2019, as part of the Plant Smith sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO^4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-167259-1	MWI-12A
400-167259-2	PZ-11D
400-167259-3	PZ-14
400-167259-4	PZ-13D

Laboratory ID	Client ID
400-167259-5	DUP-02
400-167259-6	FB-02
400-167259-7	EB-02

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid

analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 434669). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-01 was reported in laboratory report 440-167250-1. Metals were not detected in the equipment blanks above the MDLs, with the following exception.

Lithium was detected in equipment blank EB-02 at an estimated concentration greater than the MDL and less than the practical quantitation limit (PQL). Therefore, the estimated lithium concentration greater than the MDL and less than the PQL was U qualified as not detected at the PQL in the associated sample.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-14	Lithium	0.0011	I	0.0050	U	BE

I – laboratory flag defined as the reported value is between the MDL and the laboratory PQL
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.7 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-01 was reported in laboratory report 440-167250-1. Metals were not detected in the field blanks above the MDLs.

1.8 Field Duplicate

One field duplicate, DUP-02, was collected with the sample set. Acceptable precision [relative percent difference (RPD) $\leq$ 20% or difference < PQL] was demonstrated between the field duplicate and the original sample, MWI-12A.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO^4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

2.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 433367 and 433847, chloride batch 435592, fluoride batch 435153 and sulfate batches 434937 and 435477). The wet chemistry parameters were not detected in the method blanks above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported for chloride using sample MWI-12A. The recovery and RPD results were within the laboratory specified acceptance criteria with the following exceptions.

The recoveries of chloride in the MS/MSD pair using sample MWI-12A were low and outside the laboratory specified acceptance criteria. Since the chloride concentration in MWI-12A was greater than four times the chloride spiked concentration, no qualifications have been applied to the data, based on professional and technical judgement.

Batch MS/MSD pair were also reported for fluoride and sulfate. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Laboratory Duplicate

A sample set specific laboratory duplicate was reported for fluoride using sample PZ-14. The RPD result was within the laboratory and SOP specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-01 was reported in laboratory report 440-167250-1. The wet chemistry parameters were not detected in the equipment blanks above the MDLs.

2.8 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-01 was reported in laboratory report 440-167250-1. The wet chemistry parameters were not detected in the field blanks above the MDLs.

2.9 Field Duplicate

One field duplicate, DUP-02, was collected with the sample set. Acceptable precision (RPD $\leq$ 20% or difference < PQL) was demonstrated between the field duplicate and the original sample, MWI-12A.

2.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date: May 13, 2019

To: Lane Dorman

From: Kristoffer Henderson

CC: J. Caprio

Subject: Stage 2A Data Validation - Level II Data Deliverable – TestAmerica Job ID 400-167259-2

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four aqueous samples, one field duplicate sample, one equipment blank and one field blank, collected 11-12 March 2019, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental

Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-167259-1	MWI-12A
400-167259-2	PZ-11D
400-167259-3	PZ-14
400-167259-4	PZ-13D

Laboratory ID	Client ID
400-167259-5	DUP-02
400-167259-6	FB-02
400-167259-7	EB-02

No preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-226 data (batches 419788, 420714 and 421329) and one method blank was reported for the radium-228 data (batches 419798, 420719 and 421330). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

One batch MS/MSD pair was reported for radium-226 and one batch MS/MSD pair was reported for radium-228. Since these were batch QC there was no impact on the data and qualifications were not applied.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs and one LCS/laboratory control sample duplicate (LCSD) were reported for radium-226 and two LCSs and one LCS/LCSD pair were reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported for radium-226 and one batch laboratory duplicate was reported for radium-228. Since these were batch QC there was no impact on the data and qualifications were not applied.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set; EB-01 was reported in laboratory report 440-167250-1. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs.

1.9 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set; FB-01 was reported in laboratory report 440-167250-1. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs.

1.10 Field Duplicate

One field duplicate, DUP-02, was collected with the sample set. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicate and the original sample MWI-12A.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Product Name: Low-Flow System

Date: 2019-05-29 14:47:58

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	28 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	21 ft

Well Information:		Pumping Information:	
Well ID	MW-02	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2149758 L
Well Total Depth	26 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	18 in
Depth to Water	6.10 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:26:38	600.02	24.52	6.33	288.30	1.61	7.73	0.11	6.17
Last 5	14:31:38	900.02	24.18	6.33	287.79	1.25	7.75	0.10	8.80
Last 5	14:36:38	1200.02	24.10	6.32	288.49	0.90	7.75	0.11	11.35
Last 5	14:41:38	1500.02	23.96	6.32	283.50	0.81	7.76	0.10	14.92
Last 5	14:46:38	1800.02	24.12	6.29	276.40	0.72	7.76	0.08	16.80
Variance 0			-0.08	-0.01	0.70			0.01	2.54
Variance 1			-0.14	-0.01	-4.99			-0.01	3.57
Variance 2			0.16	-0.03	-7.10			-0.01	1.88

Notes

Sample@1447, DUP -01@1347, Sunny 94

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-29 13:42:12

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-03	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.08 in
Depth to Water	6.85 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:20:36	2100.02	23.43	4.74	64.31	8.09	6.93	0.06	142.76
Last 5	13:25:36	2400.02	23.38	4.74	64.64	8.56	6.93	0.07	140.25
Last 5	13:30:36	2700.02	23.53	4.74	64.43	7.46	6.93	0.06	137.46
Last 5	13:35:36	3000.02	23.51	4.74	64.44	7.23	6.93	0.06	135.62
Last 5	13:40:36	3300.02	23.45	4.73	64.71	7.11	6.93	0.06	134.19
Variance 0			0.15	0.00	-0.21			-0.01	-2.79
Variance 1			-0.02	-0.00	0.02			-0.00	-1.84
Variance 2			-0.07	-0.01	0.26			0.00	-1.43

Notes

Sample @1341, Sunny 93

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 08:29:38

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	42 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	MW-06	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	40 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	39 in
Depth to Water	14.15 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:07:47	1200.02	24.19	5.50	9710.02	6.32	17.17	0.23	-71.22
Last 5	08:12:47	1500.02	24.19	5.47	9756.29	4.95	17.30	0.29	-65.78
Last 5	08:17:49	1802.02	24.23	5.43	9824.29	4.92	17.41	0.38	-59.28
Last 5	08:22:49	2102.02	24.29	5.40	9865.10	3.84	17.45	0.46	-55.07
Last 5	08:27:49	2402.02	24.33	5.38	9948.34	3.69	17.48	0.49	-50.94
Variance 0			0.05	-0.04	68.00			0.08	6.49
Variance 1			0.05	-0.02	40.81			0.08	4.22
Variance 2			0.04	-0.03	83.24			0.04	4.12

Notes

Sample@0829, Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 09:45:29

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	42 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	MW-07	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	40 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.74 in
Depth to Water	13.39 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:16:49	600.02	24.58	6.13	12735.13	12.70	14.10	0.13	-135.09
Last 5	09:21:49	900.02	24.55	6.14	12747.76	6.54	14.12	0.11	-134.19
Last 5	09:26:49	1200.02	24.60	6.14	12777.11	4.81	14.13	0.11	-134.43
Last 5	09:31:49	1500.02	24.56	6.14	12769.15	4.76	14.13	0.10	-133.32
Last 5	09:36:49	1800.02	24.55	6.15	12751.43	4.85	14.13	0.10	-132.75
Variance 0			0.05	0.01	29.35			-0.01	-0.24
Variance 1			-0.03	0.00	-7.95			-0.00	1.11
Variance 2			-0.01	0.00	-17.73			-0.00	0.57

Notes

Sample@0944, DUP-02@0844, Sunny 87

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 11:08:25

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-08	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	48 in
Depth to Water	19.75 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:46:59	600.02	24.66	4.44	13372.08	6.89	24.62	0.11	-7.56
Last 5	10:51:59	900.02	24.77	4.46	13425.19	5.45	24.70	0.13	-9.17
Last 5	10:56:59	1200.02	24.96	4.48	13363.30	5.15	24.70	0.13	-10.20
Last 5	11:01:59	1500.02	25.09	4.52	13283.76	4.99	24.70	0.13	-12.66
Last 5	11:06:59	1800.02	25.10	4.51	13258.59	4.62	24.70	0.13	-11.47
Variance 0			0.19	0.02	-61.89			0.01	-1.03
Variance 1			0.13	0.04	-79.54			0.00	-2.46
Variance 2			0.01	-0.01	-25.17			-0.00	1.19

Notes

Sample@1107, EB-02@1115, Sunny 88

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 08:47:19

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-09	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.65 in
Depth to Water	13.15 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:25:38	2100.02	24.65	6.53	8863.25	1.02	13.80	0.30	-146.70
Last 5	08:30:38	2400.02	25.96	6.54	8685.37	0.83	13.80	0.22	-150.31
Last 5	08:35:38	2700.02	25.50	6.55	8745.74	0.64	13.80	0.20	-151.44
Last 5	08:40:38	3000.02	26.31	6.57	8602.11	0.57	13.80	0.19	-153.48
Last 5	08:45:38	3300.02	26.68	6.58	8554.81	0.52	13.80	0.21	-154.16
Variance 0			-0.46	0.01	60.37			-0.03	-1.13
Variance 1			0.81	0.01	-143.63			-0.01	-2.04
Variance 2			0.37	0.01	-47.31			0.02	-0.68

Notes

Sample @0846, Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 06:54:38

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-10	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.26 in
Depth to Water	10.89 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:31:08	600.02	24.09	5.07	10266.36	41.40	11.08	0.23	-51.71
Last 5	06:36:08	900.02	24.32	5.08	10244.54	22.60	11.12	0.21	-49.47
Last 5	06:41:08	1200.02	24.52	5.07	10216.53	14.10	11.14	0.20	-47.23
Last 5	06:46:08	1500.02	24.42	5.07	10205.46	10.50	11.15	0.19	-44.61
Last 5	06:51:08	1800.02	24.35	5.06	10263.28	8.12	11.15	0.19	-45.26
Variance 0			0.20	-0.00	-28.01			-0.01	2.24
Variance 1			-0.10	-0.00	-11.07			-0.01	2.62
Variance 2			-0.07	-0.01	57.82			-0.00	-0.65

Notes

Sample@0654, DUP-03@0554, Sunny 76

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-29 14:41:37

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-11	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	27 in
Depth to Water	10.20 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:19:30	600.03	28.46	6.41	8516.00	2.33	12.07	0.08	-163.99
Last 5	14:24:30	900.02	28.45	6.40	8665.13	2.23	12.31	0.08	-174.27
Last 5	14:29:30	1200.02	28.60	6.39	8801.87	2.81	12.37	0.07	-181.45
Last 5	14:34:30	1500.02	28.63	6.40	8918.11	3.04	12.44	0.07	-185.83
Last 5	14:39:30	1800.02	28.66	6.40	8989.87	2.84	12.48	0.07	-188.65
Variance 0			0.15	-0.00	136.73			-0.00	-7.19
Variance 1			0.03	0.00	116.24			-0.00	-4.38
Variance 2			0.03	0.00	71.76			-0.00	-2.82

Notes

Sample time 1443. Sunny 92.

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-29 12:05:30

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	MW-12	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	32 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	60 in
Depth to Water	9.69 ft	Total Volume Pumped	20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:43:36	1802.02	25.11	6.11	1246.00	6.32	14.56	0.10	18.46
Last 5	11:48:36	2102.02	25.17	6.10	1227.12	5.66	14.60	0.09	20.15
Last 5	11:53:37	2403.02	25.10	6.09	1211.04	5.12	14.62	0.10	21.72
Last 5	11:58:37	2703.02	25.21	6.09	1184.77	4.71	14.63	0.09	23.27
Last 5	12:03:37	3003.02	26.00	6.62	1.96	4.61	14.63	7.83	13.11
Variance 0			-0.07	-0.01	-16.09			0.01	1.57
Variance 1			0.11	-0.01	-26.27			-0.01	1.55
Variance 2			0.80	0.53	-1182.81			7.73	-10.16

Notes

Sample@1204 Sunny 90

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 11:01:27

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-13	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	31 in
Depth to Water	18.93 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:43:59	300.02	25.48	6.92	15581.58	0.74	20.97	0.26	-222.99
Last 5	10:48:59	600.02	25.47	6.97	15472.21	0.64	21.44	0.26	-224.59
Last 5	10:53:59	900.02	25.54	6.98	15412.05	0.63	21.62	0.25	-223.55
Last 5	10:59:00	1201.02	25.49	6.96	15465.13	0.54	21.64	0.24	-221.15
Last 5									
Variance 0			-0.01	0.04	-109.37			-0.01	-1.60
Variance 1			0.07	0.01	-60.16			-0.01	1.04
Variance 2			-0.05	-0.01	53.07			-0.01	2.40

Notes

Sample@1100, Sunny 90

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 09:47:38

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	44 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	36 ft

Well Information:		Pumping Information:	
Well ID	MW-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2863906 L
Well Total Depth	41 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	13 in
Depth to Water	22.72 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:26:00	300.05	25.09	6.95	8557.32	4.56	23.52	0.17	-204.35
Last 5	09:31:00	600.02	24.50	6.96	8646.49	2.93	23.75	0.13	-203.12
Last 5	09:36:00	900.02	24.35	6.96	8662.50	2.59	23.79	0.11	-202.98
Last 5	09:41:00	1200.02	24.26	6.96	8617.18	2.47	23.81	0.11	-201.37
Last 5	09:46:00	1500.02	24.27	6.96	8612.84	2.14	23.81	0.10	-201.08
Variance 0			-0.15	0.00	16.01			-0.02	0.14
Variance 1			-0.09	-0.00	-45.32			-0.01	1.61
Variance 2			0.02	-0.00	-4.34			-0.01	0.28

Notes

Sample@0948, FB-02@0945, Sunny 87

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-29 13:12:01

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	10.5 ft

Well Information:		Pumping Information:	
Well ID	MWI-12A	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2239027 L
Well Total Depth	15.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	66 in
Depth to Water	8.59 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:47:06	1800.02	23.86	5.14	1206.13	1.20	12.21	0.25	183.00
Last 5	12:52:06	2100.02	24.97	5.14	1243.00	0.69	11.82	0.41	175.65
Last 5	12:57:06	2400.02	25.56	5.08	1232.87	1.02	11.65	0.23	175.44
Last 5	13:02:06	2700.02	25.55	5.08	1242.24	1.30	11.55	0.24	173.96
Last 5	13:07:06	3000.02	25.60	5.06	1238.52	1.18	11.50	0.25	173.11
Variance 0			0.59	-0.06	-10.13			-0.19	-0.21
Variance 1			-0.01	-0.00	9.37			0.02	-1.48
Variance 2			0.05	-0.02	-3.72			0.00	-0.85

Notes

Sample time 1311. Sunny 90. Had to slow purge rate down to 200ml per minute at 1249 because of draw down.

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-29 16:40:01

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	59 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	PZ-11D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3533419 L
Well Total Depth	56 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	19 in
Depth to Water	8.72 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:13:31	1200.02	26.93	6.75	5932.51	21.70	10.45	0.16	-108.31
Last 5	16:18:31	1500.02	26.88	6.75	5982.90	5.70	10.45	0.16	-108.26
Last 5	16:23:31	1800.02	26.78	6.75	6046.97	5.14	10.45	0.15	-108.04
Last 5	16:28:31	2100.02	26.74	6.75	6118.95	5.74	10.45	0.15	-108.44
Last 5	16:33:31	2400.02	26.70	6.75	6174.35	5.73	10.44	0.14	-109.24
Variance 0			-0.10	-0.00	64.07			-0.01	0.22
Variance 1			-0.04	-0.00	71.98			-0.00	-0.40
Variance 2			-0.05	-0.00	55.40			-0.00	-0.80

Notes

Sample time 1638. Sunny 90.

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 12:11:50

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	60 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	52.4 ft

Well Information:		Pumping Information:	
Well ID	PZ-13d	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	57.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	16 in
Depth to Water	19.70 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:55:16	300.02	26.14	4.67	15501.58	1.27	20.80	0.20	-49.53
Last 5	12:00:16	600.02	25.69	4.63	15448.48	1.26	21.00	0.17	-42.56
Last 5	12:05:16	900.02	25.67	4.63	15417.98	0.96	21.09	0.15	-39.74
Last 5	12:10:16	1200.02	25.68	4.62	15336.39	0.83	21.11	0.14	-37.39
Last 5									
Variance 0			-0.45	-0.04	-53.11			-0.03	6.96
Variance 1			-0.03	-0.00	-30.49			-0.01	2.83
Variance 2			0.02	-0.01	-81.59			-0.01	2.35

Notes

Sample @12:11, FB-01@1200, Sunny 92

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-30 13:15:44

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	27 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	19.8 ft

Well Information:		Pumping Information:	
Well ID	PZ-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2105124 L
Well Total Depth	24.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	30 in
Depth to Water	5.31 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:58:38	300.02	23.91	6.13	13245.81	1.38	7.25	0.16	-178.55
Last 5	13:03:38	600.02	23.64	6.07	13263.79	1.01	7.63	0.15	-177.79
Last 5	13:08:38	900.02	23.59	6.09	13207.50	1.33	7.87	0.14	-180.26
Last 5	13:13:38	1200.02	23.51	6.09	13177.35	1.25	7.93	0.13	-180.95
Last 5									
Variance 0			-0.27	-0.06	17.98			-0.02	0.76
Variance 1			-0.05	0.01	-56.28			-0.01	-2.47
Variance 2			-0.08	0.01	-30.15			-0.01	-0.69

Notes

Sample@1314, EB-01@1325, Sunny 95

Grab Samples

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170841-1
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/22/2019 10:20:40 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-170841-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170841-1

Metals
Method(s) 6020: The Internal Standard (Bi) for 447436 recovered outside control limits. The following analytes are affected: Lead. This ISTD was biased high and the samples are non detect for the associated analyte; therefore, the data have been reported.

General Chemistry
Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171203-A-14 MS) and (400-171203-A-14 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444079 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-12 (400-170841-3), (400-171203-A-14), (400-171203-A-14 MS) and (400-171203-A-14 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: Due to the concentration of chloride in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-170869-A-1 MS) and (400-170869-A-1 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444098 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: (400-170869-A-1), (400-170869-A-1 MS) and (400-170869-A-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: MW-02 — Lab Sample ID: 400-170841-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	35		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0012	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	4.3	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.29				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-03 — Lab Sample ID: 400-170841-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.011		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	4.73				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 400-170841-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.024	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	37		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.013		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	540		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	190		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.0	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.62				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-170841-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	33		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: DUP-01 (Continued)

Lab Sample ID: 400-170841-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	4.3	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.29				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170841-1	MW-02	Water	05/28/19 14:47	05/29/19 17:05	
400-170841-2	MW-03	Water	05/28/19 13:41	05/29/19 17:05	
400-170841-3	MW-12	Water	05/28/19 12:04	05/29/19 17:05	
400-170841-4	DUP-01	Water	05/28/19 13:47	05/29/19 17:05	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: MW-02

Date Collected: 05/28/19 14:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 02:10	5
Barium	**0.016**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 02:10	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 10:15	08/10/19 01:35	5
Calcium	**35**		0.25	0.13	mg/L		07/02/19 10:15	07/10/19 02:10	5
Chromium	**0.0020**	**I**	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 02:10	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	07/10/19 02:10	5
Lithium	**0.0012**	**I**	0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 02:10	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 02:10	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**140**		5.0	3.4	mg/L			05/30/19 10:11	1
Chloride	**13**		2.0	1.4	mg/L			06/11/19 13:19	1
Fluoride	**0.13**		0.10	0.032	mg/L			05/30/19 12:51	1
Sulfate	**4.3**	**I**	5.0	1.4	mg/L			06/11/19 21:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.29**				SU			05/28/19 14:47	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: MW-03

Date Collected: 05/28/19 13:41
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 02:14	5
Barium	**0.021**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 02:14	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 10:15	08/10/19 01:40	5
Calcium	**2.1**		0.25	0.13	mg/L		07/02/19 10:15	07/10/19 02:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 02:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	07/10/19 02:14	5
Lithium	**0.011**		0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 02:14	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 02:14	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			05/30/19 10:11	1
Chloride	**13**		2.0	1.4	mg/L			06/11/19 13:26	1
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			05/30/19 13:02	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/11/19 21:30	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.73**				SU			05/28/19 13:41	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: MW-12

Date Collected: 05/28/19 12:04
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 02:18	5
Barium	**0.013**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 02:18	5
Boron	**0.024**	**I**	0.050	0.021	mg/L		07/02/19 10:15	08/10/19 01:46	5
Calcium	**37**		0.25	0.13	mg/L		07/02/19 10:15	07/10/19 02:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 02:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	07/10/19 02:18	5
Lithium	**0.013**		0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 02:18	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 02:18	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**540**		5.0	3.4	mg/L			05/30/19 10:11	1
Chloride	**190**		40	28	mg/L			06/11/19 15:23	20
Fluoride	**0.13**		0.10	0.032	mg/L			05/30/19 13:07	1
Sulfate	**3.0**	**I**	5.0	1.4	mg/L			06/11/19 21:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.62**				SU			05/28/19 12:04	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: DUP-01
Date Collected: 05/28/19 13:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-4
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 02:22	5
Barium	**0.015**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 02:22	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 10:15	08/10/19 01:51	5
Calcium	**33**		0.25	0.13	mg/L		07/02/19 10:15	07/10/19 02:22	5
Chromium	**0.0019**	**I**	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 02:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	07/10/19 02:22	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 02:22	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 02:22	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		5.0	3.4	mg/L			05/30/19 10:11	1
Chloride	**12**		2.0	1.4	mg/L			06/11/19 17:16	1
Fluoride	**0.13**		0.10	0.032	mg/L			05/30/19 13:09	1
Sulfate	**4.3**	**I**	5.0	1.4	mg/L			06/11/19 21:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.29**				SU			05/28/19 13:47	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: MW-02
Date Collected: 05/28/19 14:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 02:10	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451819	08/10/19 01:35	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	442615	05/30/19 10:11	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444079	06/11/19 13:19	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442670	05/30/19 12:51	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444125	06/11/19 21:30	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/28/19 14:47	MCS	TAL PEN

Client Sample ID: MW-03
Date Collected: 05/28/19 13:41
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 02:14	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451819	08/10/19 01:40	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	442615	05/30/19 10:11	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444079	06/11/19 13:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442670	05/30/19 13:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444125	06/11/19 21:30	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/28/19 13:41	MCS	TAL PEN

Client Sample ID: MW-12
Date Collected: 05/28/19 12:04
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 02:18	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451819	08/10/19 01:46	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	442615	05/30/19 10:11	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	444079	06/11/19 15:23	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442670	05/30/19 13:07	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444125	06/11/19 21:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/28/19 12:04	MCS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Client Sample ID: DUP-01
Date Collected: 05/28/19 13:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 02:22	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451819	08/10/19 01:51	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	442615	05/30/19 10:11	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444098	06/11/19 17:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442670	05/30/19 13:09	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444125	06/11/19 21:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/28/19 13:47	MCS	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 446512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total Recoverable	Water	3005A	
400-170841-2	MW-03	Total Recoverable	Water	3005A	
400-170841-3	MW-12	Total Recoverable	Water	3005A	
400-170841-4	DUP-01	Total Recoverable	Water	3005A	
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-90685-C-1-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
180-90685-C-1-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 447436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total Recoverable	Water	6020	446512
400-170841-2	MW-03	Total Recoverable	Water	6020	446512
400-170841-3	MW-12	Total Recoverable	Water	6020	446512
400-170841-4	DUP-01	Total Recoverable	Water	6020	446512
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	6020	446512
180-90685-C-1-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	446512
180-90685-C-1-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	446512

Analysis Batch: 451819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total Recoverable	Water	6020	446512
400-170841-2	MW-03	Total Recoverable	Water	6020	446512
400-170841-3	MW-12	Total Recoverable	Water	6020	446512
400-170841-4	DUP-01	Total Recoverable	Water	6020	446512
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	6020	446512

General Chemistry

Analysis Batch: 442615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	SM 2540C	
400-170841-2	MW-03	Total/NA	Water	SM 2540C	
400-170841-3	MW-12	Total/NA	Water	SM 2540C	
400-170841-4	DUP-01	Total/NA	Water	SM 2540C	
MB 400-442615/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-442615/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-170818-D-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 442670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	SM 4500 F C	
400-170841-2	MW-03	Total/NA	Water	SM 4500 F C	
400-170841-3	MW-12	Total/NA	Water	SM 4500 F C	
400-170841-4	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-442670/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-442670/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-170695-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-170695-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-170841-2 DU	MW-03	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

General Chemistry

Analysis Batch: 444079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	SM 4500 Cl- E	
400-170841-2	MW-03	Total/NA	Water	SM 4500 Cl- E	
400-170841-3	MW-12	Total/NA	Water	SM 4500 Cl- E	
MB 400-444079/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444079/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444079/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-170841-1 MS	MW-02	Total/NA	Water	SM 4500 Cl- E	
400-170841-1 MSD	MW-02	Total/NA	Water	SM 4500 Cl- E	
400-171203-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-171203-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 444098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-4	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-444098/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444098/50	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444098/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-170869-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-170869-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 444125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	SM 4500 SO4 E	
400-170841-2	MW-03	Total/NA	Water	SM 4500 SO4 E	
400-170841-3	MW-12	Total/NA	Water	SM 4500 SO4 E	
400-170841-4	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-444125/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444125/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444125/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-170841-1 MS	MW-02	Total/NA	Water	SM 4500 SO4 E	
400-170841-1 MSD	MW-02	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 445775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	Field Sampling	
400-170841-2	MW-03	Total/NA	Water	Field Sampling	
400-170841-3	MW-12	Total/NA	Water	Field Sampling	
400-170841-4	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-446512/1-A
Matrix: Water
Analysis Batch: 451819

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 10:15	08/10/19 00:56	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 10:15	08/10/19 00:56	1
Boron	0.0042	U	0.010	0.0042	mg/L		07/02/19 10:15	08/10/19 00:56	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 10:15	08/10/19 00:56	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 10:15	08/10/19 00:56	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 10:15	08/10/19 00:56	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 10:15	08/10/19 00:56	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 10:15	08/10/19 00:56	1

Lab Sample ID: LCS 400-446512/2-A
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0509		mg/L		102	80 - 120
Barium	0.0500	0.0507		mg/L		101	80 - 120
Boron	0.100	0.117		mg/L		117	80 - 120
Calcium	1.00	1.04		mg/L		104	80 - 120
Chromium	0.0500	0.0519		mg/L		104	80 - 120
Lead	0.0500	0.0469		mg/L		94	80 - 120
Lithium	0.0500	0.0522		mg/L		104	80 - 120
Molybdenum	0.0500	0.0462		mg/L		92	80 - 120

Lab Sample ID: 180-90685-C-1-E MS ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00095	I	0.0500	0.0529		mg/L		104	75 - 125
Barium	0.070		0.0500	0.117		mg/L		94	75 - 125
Boron	0.058		0.100	0.175		mg/L		117	75 - 125
Calcium	12		1.00	13.3		mg/L		77	75 - 125
Chromium	0.0011	U	0.0500	0.0488		mg/L		98	75 - 125
Lead	0.00035	U	0.0500	0.0439		mg/L		88	75 - 125
Lithium	0.011		0.0500	0.0627		mg/L		103	75 - 125
Molybdenum	0.0020	U	0.0500	0.0480		mg/L		96	75 - 125

Lab Sample ID: 180-90685-C-1-F MSD ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00095	I	0.0500	0.0524		mg/L		103	75 - 125	1	20
Barium	0.070		0.0500	0.121		mg/L		102	75 - 125	3	20
Boron	0.058		0.100	0.163		mg/L		105	75 - 125	7	20
Calcium	12		1.00	13.2	J3	mg/L		68	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0490		mg/L		98	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0441		mg/L		88	75 - 125	1	20
Lithium	0.011		0.0500	0.0611		mg/L		100	75 - 125	3	20

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

Lab Sample ID: 180-90685-C-1-F MSD ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum	0.0020	U	0.0500	0.0470		mg/L		94	75 - 125	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-442615/1
Matrix: Water
Analysis Batch: 442615

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/30/19 10:11	1

Lab Sample ID: LCS 400-442615/2
Matrix: Water
Analysis Batch: 442615

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	300		mg/L		102	78 - 122

Lab Sample ID: 400-170818-D-3 DU
Matrix: Water
Analysis Batch: 442615

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	190		178		mg/L		5	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-444079/6
Matrix: Water
Analysis Batch: 444079

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 13:15	1

Lab Sample ID: LCS 400-444079/7
Matrix: Water
Analysis Batch: 444079

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.5		mg/L		105	90 - 110

Lab Sample ID: MRL 400-444079/3
Matrix: Water
Analysis Batch: 444079

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.37	I	mg/L		68	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-170841-1 MS
Matrix: Water
Analysis Batch: 444079

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13		10.0	22.4		mg/L		99	73 - 120

Lab Sample ID: 400-170841-1 MSD
Matrix: Water
Analysis Batch: 444079

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	13		10.0	22.1		mg/L		96	73 - 120	1	8

Lab Sample ID: 400-171203-A-14 MS
Matrix: Water
Analysis Batch: 444079

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4000		10.0	3800	J3	mg/L		-1989	73 - 120

Lab Sample ID: 400-171203-A-14 MSD
Matrix: Water
Analysis Batch: 444079

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4000		10.0	3740	J3	mg/L		-2532	73 - 120	1	8

Lab Sample ID: MB 400-444098/5
Matrix: Water
Analysis Batch: 444098

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:16	1

Lab Sample ID: LCS 400-444098/50
Matrix: Water
Analysis Batch: 444098

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.8		mg/L		109	90 - 110

Lab Sample ID: MRL 400-444098/3
Matrix: Water
Analysis Batch: 444098

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.26	I	mg/L		63	50 - 150

Lab Sample ID: 400-170869-A-1 MS
Matrix: Water
Analysis Batch: 444098

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	310		10.0	312	J3	mg/L		-26	73 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 400-170869-A-1 MSD
Matrix: Water
Analysis Batch: 444098

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	310		10.0	317	J3	mg/L		26	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-442670/3
Matrix: Water
Analysis Batch: 442670

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			05/30/19 12:02	1

Lab Sample ID: LCS 400-442670/4
Matrix: Water
Analysis Batch: 442670

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.61		mg/L		90	90 - 110

Lab Sample ID: 400-170695-A-1 MS
Matrix: Water
Analysis Batch: 442670

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.032	U	1.00	1.00		mg/L		100	75 - 125

Lab Sample ID: 400-170695-A-1 MSD
Matrix: Water
Analysis Batch: 442670

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.032	U	1.00	0.980		mg/L		98	75 - 125	2	4

Lab Sample ID: 400-170841-2 DU
Matrix: Water
Analysis Batch: 442670

Client Sample ID: MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.040	I	0.0400	I	mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-444125/6
Matrix: Water
Analysis Batch: 444125

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/11/19 21:30	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-444125/7
Matrix: Water
Analysis Batch: 444125

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.8		mg/L		106	90 - 110

Lab Sample ID: MRL 400-444125/3
Matrix: Water
Analysis Batch: 444125

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.16		mg/L		103	50 - 150

Lab Sample ID: 400-170841-1 MS
Matrix: Water
Analysis Batch: 444125

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	4.3	I	10.0	13.1		mg/L		88	77 - 128

Lab Sample ID: 400-170841-1 MSD
Matrix: Water
Analysis Batch: 444125

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	4.3	I	10.0	13.1		mg/L		89	77 - 128	0	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Sykes	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
Company: Gulf Power Company				Job #: 170841
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Upgradient	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-02	5/28/19	1447	G	Water			X	X	X	X		
MW-03		1341		Water								
MW-12		1204		Water								
Dup-01	5/28/19	1347	G	Water			X	X	X	X		
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								

400-170841 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5/29/19 1431	RDH	Trevor Braddock	5/29/19 1431	RDH
[signature]	5/29/19 1705	RDH	Kathy R Owen	5-29-19 1705	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1°C IR7

8/22/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170841-1
SDG Number: Upgradient

Login Number: 170841
List Number: 1
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1°C, IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-1
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State Program	88-0689	09-01-19
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-19
Oklahoma	State Program	9810	08-31-19
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-19 *
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	07-31-19 *

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170841-2
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/21/2019 5:49:13 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-170841-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170841-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-431186. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-02 (400-170841-1), MW-03 (400-170841-2), MW-12 (400-170841-3), DUP-01 (400-170841-4), (LCS 160-431186/1-A), (LCSD 160-431186/2-A) and (MB 160-431186/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431246. The LCS spike recovery (134%) was above the QC limit (125%) indicating a potential high bias to sample results. An LCSD was run in the batch for replicate precision - the LCSD spike recovery was 123% and the replicate precision was within QC limits demonstrating acceptable performance. The data are reported with this narrative. MW-02 (400-170841-1), MW-03 (400-170841-2), MW-12 (400-170841-3), DUP-01 (400-170841-4), (LCS 160-431246/1-A), (LCSD 160-431246/2-A) and (MB 160-431246/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431246. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-02 (400-170841-1), MW-03 (400-170841-2), MW-12 (400-170841-3), DUP-01 (400-170841-4), (LCS 160-431246/1-A), (LCSD 160-431246/2-A) and (MB 160-431246/23-A)

Method(s) 9320: Radium-228 Prep Batch 160-431246. The method blank (MB) exhibited a negative result greater in magnitude than the 3 sigma TPU. This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required. (MB 160-431246/23-A)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431246. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-02 (400-170841-1), MW-03 (400-170841-2), MW-12 (400-170841-3) and DUP-01 (400-170841-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431186. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-02 (400-170841-1), MW-03 (400-170841-2), MW-12 (400-170841-3) and DUP-01 (400-170841-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170841-1	MW-02	Water	05/28/19 14:47	05/29/19 17:05	
400-170841-2	MW-03	Water	05/28/19 13:41	05/29/19 17:05	
400-170841-3	MW-12	Water	05/28/19 12:04	05/29/19 17:05	
400-170841-4	DUP-01	Water	05/28/19 13:47	05/29/19 17:05	

Client Sample ID: MW-02

Date Collected: 05/28/19 14:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.814**		0.154	0.171	1.00	0.110	pCi/L	06/07/19 14:41	08/15/19 09:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.2*		*40 - 110*	*06/07/19 14:41*	*08/15/19 09:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.350	U *	0.306	0.308	1.00	0.489	pCi/L	06/10/19 11:03	07/23/19 14:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.2*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*
Y Carrier	*78.9*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.16**		0.343	0.352	5.00	0.489	pCi/L		08/16/19 08:01	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Client Sample ID: MW-03
Date Collected: 05/28/19 13:41
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.02**		0.180	0.202	1.00	0.137	pCi/L	06/07/19 14:41	08/15/19 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*06/07/19 14:41*	*08/15/19 09:33*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.109	U *	0.309	0.310	1.00	0.536	pCi/L	06/10/19 11:03	07/23/19 14:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*
Y Carrier	*76.6*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.13**		0.358	0.370	5.00	0.536	pCi/L		08/16/19 08:01	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Client Sample ID: MW-12

Date Collected: 05/28/19 12:04
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0351	U	0.0727	0.0728	1.00	0.131	pCi/L	06/07/19 14:41	08/15/19 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*66.4*		*40 - 110*	*06/07/19 14:41*	*08/15/19 09:33*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0915	U *	0.372	0.372	1.00	0.687	pCi/L	06/10/19 11:03	07/23/19 14:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*66.4*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*
Y Carrier	*74.8*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0564	U	0.379	0.379	5.00	0.687	pCi/L		08/16/19 08:01	1

Client Sample ID: DUP-01

Date Collected: 05/28/19 13:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.69		0.228	0.273	1.00	0.117	pCi/L	06/07/19 14:41	08/15/19 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*06/07/19 14:41*	*08/15/19 09:33*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.688	*	0.382	0.387	1.00	0.571	pCi/L	06/10/19 11:03	07/23/19 14:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*
Y Carrier	*78.1*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:20*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.37		0.445	0.474	5.00	0.571	pCi/L		08/16/19 08:01	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Client Sample ID: MW-02
Date Collected: 05/28/19 14:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431186	06/07/19 14:41	ORM	TAL SL
Total/NA	Analysis	9315		1	439664	08/15/19 09:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431246	06/10/19 11:03	ORM	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 14:20	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439711	08/16/19 08:01	SMP	TAL SL

Client Sample ID: MW-03
Date Collected: 05/28/19 13:41
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431186	06/07/19 14:41	ORM	TAL SL
Total/NA	Analysis	9315		1	439623	08/15/19 09:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431246	06/10/19 11:03	ORM	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 14:20	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439711	08/16/19 08:01	SMP	TAL SL

Client Sample ID: MW-12
Date Collected: 05/28/19 12:04
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431186	06/07/19 14:41	ORM	TAL SL
Total/NA	Analysis	9315		1	439623	08/15/19 09:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431246	06/10/19 11:03	ORM	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 14:20	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439711	08/16/19 08:01	SMP	TAL SL

Client Sample ID: DUP-01
Date Collected: 05/28/19 13:47
Date Received: 05/29/19 17:05

Lab Sample ID: 400-170841-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431186	06/07/19 14:41	ORM	TAL SL
Total/NA	Analysis	9315		1	439623	08/15/19 09:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431246	06/10/19 11:03	ORM	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 14:20	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439711	08/16/19 08:01	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Rad

Prep Batch: 431186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	PrecSep-21	
400-170841-2	MW-03	Total/NA	Water	PrecSep-21	
400-170841-3	MW-12	Total/NA	Water	PrecSep-21	
400-170841-4	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-431186/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431186/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-431186/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 431246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170841-1	MW-02	Total/NA	Water	PrecSep_0	
400-170841-2	MW-03	Total/NA	Water	PrecSep_0	
400-170841-3	MW-12	Total/NA	Water	PrecSep_0	
400-170841-4	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-431246/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431246/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-431246/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431186/23-A
Matrix: Water
Analysis Batch: 439623

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431186

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03919	U	0.0565	0.0566	1.00	0.0963	pCi/L	06/07/19 14:41	08/15/19 10:26	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*40 - 110*	*06/07/19 14:41*	*08/15/19 10:26*	*1*

Lab Sample ID: LCS 160-431186/1-A
Matrix: Water
Analysis Batch: 439663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431186

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.85		1.13	1.00	0.124	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.9*		*40 - 110*

Lab Sample ID: LCSD 160-431186/2-A
Matrix: Water
Analysis Batch: 439663

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431186

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	10.55		1.11	1.00	0.131	pCi/L	93	75 - 125	0.13	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*74.9*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431246/23-A
Matrix: Water
Analysis Batch: 436108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431246

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-1.123	U	0.388	0.401	1.00	0.806	pCi/L	06/10/19 11:03	07/23/19 14:19	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:19*	*1*
Y Carrier	*79.6*		*40 - 110*	*06/10/19 11:03*	*07/23/19 14:19*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-431246/1-A
Matrix: Water
Analysis Batch: 436108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431246

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.00	12.10	*	1.47	1.00	0.601	pCi/L	134	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.9*		*40 - 110*
Y Carrier	*77.8*		*40 - 110*

Lab Sample ID: LCSD 160-431246/2-A
Matrix: Water
Analysis Batch: 436108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431246

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.00	11.11		1.38	1.00	0.559	pCi/L	123	75 - 125	0.35	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*74.9*		*40 - 110*
Y Carrier	*77.0*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Sykes	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
Company: Gulf Power Company				Job #: 170841
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Upgradient	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

400-170841 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-02	5/28/19	1447	G	Water			X	X	X	X		
MW-03	"	1341	"	Water			"	"	"	"		
MW-12	"	1204	"	Water			"	"	"	"		
Dup-01	5/28/19	1347	G	Water			X	X	X	X		
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5/29/19 1431	RDH	Trevor Braddock	5/29/19 1431	RDH
[signature]	5/29/19 1705	RDH	Kathy R Owen	5-29-19 1705	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1°C IR7

8/21/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170841-2
SDG Number: Upgradient

Login Number: 170841
List Number: 1
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1°C, IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170841-2
SDG Number: Upgradient

Login Number: 170841
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 05/31/19 12:42 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-20
Florida	NELAP	4	E81010	06-30-20
Florida	NELAP		E81010	06-30-20
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Illinois	NELAP		004586	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-20
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
New Jersey	NELAP		FL006	07-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State		C915	05-15-20
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19 *

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170841-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2305	04-06-22
ANAB	DoD		L2305	04-06-22
ANAB	DOE		L2305.01	04-06-22
Arizona	State		AZ0813	12-08-19
Arizona	State Program	9	AZ0813	12-08-19
California	State		2886	06-30-20
California	State Program	9	2886	06-30-20
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-20
Florida	NELAP		E87689	06-30-20
Hawaii	State Program	9	NA	06-30-20
Illinois	NELAP	5	200023	11-30-19
Illinois	NELAP		004553	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State		KY90125	12-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-20
Louisiana (DW)	NELAP	6	LA011	12-31-19
Louisiana (DW)	State		LA011	12-31-19
Maryland	State		310	09-30-20
Maryland	State Program	3	310	09-30-20
Michigan	State Program	5	9005	06-30-20
Missouri	State		780	06-30-22
Missouri	State Program	7	780	06-30-20
Nevada	State		MO000542020-1	07-31-20
New Jersey	NELAP	2	MO002	06-30-20
New Jersey	NELAP		MO002	06-30-20
New York	NELAP	2	11616	03-31-20
New York	NELAP		11616	04-01-20
North Dakota	State		R-207	06-30-20
North Dakota	State Program	8	R207	06-30-20
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State		9997	08-31-19
Oklahoma	State Program	6	9997	08-31-19 *
Pennsylvania	NELAP	3	68-00540	02-28-20
Pennsylvania	NELAP		68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-20
Texas	NELAP	6	T104704193-19-14	07-31-20
Texas	NELAP		T104704193-19-13	07-31-20
US Fish & Wildlife	Federal		058448	07-31-20
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542019-11	07-31-20
Virginia	NELAP	3	460230	06-14-20
Virginia	NELAP		10310	06-14-20
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19 *

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170870-1
Laboratory Sample Delivery Group: Downgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Authorized for release by:
9/11/2019 12:02:47 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-170870-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170870-1

Metals

Method(s) 6020: The method blank for preparation batch 400-446512 and analytical batch 400-454169 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: The method blank for preparation batch 400-446508 and analytical batch 400-454608 contained Arsenic and Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

General Chemistry

Method(s) SM 4500 Cl- E: Due to the concentration of chloride in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-170870-A-1 MS) and (400-170870-A-1 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444098 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-170870-1), MW-07 (400-170870-2), MW-08 (400-170870-3), MW-09 (400-170870-4), MW-10 (400-170870-5), MW-13 (400-170870-7), MW-14 (400-170870-8), DUP-02 (400-170870-9), DUP-03 (400-170870-12), (400-171069-D-1), (400-171069-D-1 MS), (400-171069-D-1 MSD), (400-170870-A-1 MS) and (400-170870-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171069-D-1 MS) and (400-171069-D-1 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444534 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-170943-A-2 MS), (400-170943-A-2 MSD), (400-171447-B-1 MS) and (400-171447-B-1 MSD)

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444516 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-170870-1), MW-07 (400-170870-2), MW-08 (400-170870-3), MW-09 (400-170870-4), MW-10 (400-170870-5), MW-11 (400-170870-6), MW-13 (400-170870-7), MW-14 (400-170870-8), DUP-02 (400-170870-9), DUP-03 (400-170870-12), (400-170943-A-2), (400-170943-A-2 MS), (400-170943-A-2 MSD), (400-171447-B-1), (400-171447-B-1 MS) and (400-171447-B-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-06 — Lab Sample ID: 400-170870-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.065		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	9.0		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	250		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.012		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	5800		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2800		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	460		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	5.38				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-07 — Lab Sample ID: 400-170870-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00099	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.16		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	3.2		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	440		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0012	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0020	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0033	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8600		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3400		140	98	mg/L	70		SM 4500 Cl- E	Total/NA
Sulfate	870		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	6.15				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-08 — Lab Sample ID: 400-170870-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0015		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	14		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	470		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.0089		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	7700		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3700		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	940		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	4.51				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-09 — Lab Sample ID: 400-170870-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0038		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.080		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	10		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	230		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.0028	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0023	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4600		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2100		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	550		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	6.58				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 400-170870-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0016		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.096		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	10		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	440		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.0051		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	5900		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2600		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	800		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	5.06				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 400-170870-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.014		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.17		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	4.1		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	190		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0028		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lead	0.0013		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0021	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0086	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	5600		50	34	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-11 (Continued) — Lab Sample ID: 400-170870-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2900		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	350		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	6.40				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 400-170870-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.077		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.28		0.010	0.0042	mg/L	1		6020	Total Recoverable
Calcium	640		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.18		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.010	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	9200		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	4300		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	830		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	6.96				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 400-170870-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0055		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.051		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	14		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	230		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.0026	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.017		0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4300		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2000		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.090	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	550		300	84	mg/L	60		SM 4500 SO4 E	Total/NA
Field pH	6.96				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-170870-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0015	V	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.16		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	3.8		0.50	0.21	mg/L	50		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-02 (Continued) — Lab Sample ID: 400-170870-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	400		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0015	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0027	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0042	I	0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8600		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3500		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	870		300	84	mg/L	60		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-170870-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.57		0.50	0.21	mg/L	50		6020	Total Recoverable
Sulfate	1.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-170870-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0034		0.0025	0.00049	mg/L	5		6020	Total Recoverable

Client Sample ID: DUP-03 — Lab Sample ID: 400-170870-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0017	V	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.10		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	10		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	430		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.0069		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	5500		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2600		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	800		300	84	mg/L	60		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-170870-13

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.9	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 400-170870-14

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00099	I	0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170870-1	MW-06	Water	05/29/19 08:29	05/30/19 14:37	
400-170870-2	MW-07	Water	05/29/19 09:44	05/30/19 14:37	
400-170870-3	MW-08	Water	05/30/19 11:07	05/30/19 14:37	
400-170870-4	MW-09	Water	05/30/19 08:47	05/30/19 14:37	
400-170870-5	MW-10	Water	05/30/19 06:54	05/30/19 14:37	
400-170870-6	MW-11	Water	05/29/19 14:43	05/30/19 14:37	
400-170870-7	MW-13	Water	05/29/19 11:00	05/30/19 14:37	
400-170870-8	MW-14	Water	05/30/19 09:48	05/30/19 14:37	
400-170870-9	DUP-02	Water	05/29/19 08:44	05/30/19 14:37	
400-170870-10	EB-01	Water	05/29/19 13:25	05/30/19 14:37	
400-170870-11	FB-01	Water	05/29/19 12:00	05/30/19 14:37	
400-170870-12	DUP-03	Water	05/30/19 05:54	05/30/19 14:37	
400-170870-13	FB-02	Water	05/30/19 09:45	05/30/19 14:37	
400-170870-14	EB-02	Water	05/30/19 11:15	05/30/19 14:37	

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-06
Date Collected: 05/29/19 08:29
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-1
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 01:22	5
Barium	**0.065**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 01:22	5
Boron	**9.0**		0.50	0.21	mg/L		07/02/19 10:15	08/27/19 18:37	50
Calcium	**250**		2.5	1.3	mg/L		07/02/19 10:15	08/10/19 23:33	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 01:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 22:54	5
Lithium	**0.012**		0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 01:22	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 01:22	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5800**		50	34	mg/L			05/31/19 09:35	1
Chloride	**2800**		200	140	mg/L			06/11/19 18:12	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/31/19 12:35	1
Sulfate	**460**		300	84	mg/L			06/14/19 13:00	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.38**				SU			05/29/19 08:29	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-07

Date Collected: 05/29/19 09:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00099	I	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 01:26	5
Barium	0.16		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 01:26	5
Boron	3.2		0.50	0.21	mg/L		07/02/19 10:15	08/27/19 18:43	50
Calcium	440		2.5	1.3	mg/L		07/02/19 10:15	08/10/19 23:38	50
Chromium	0.0012	I	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 01:26	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 22:59	5
Lithium	0.0020	I	0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 01:26	5
Molybdenum	0.0033	I	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 01:26	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8600		50	34	mg/L			05/31/19 09:35	1
Chloride	3400		140	98	mg/L			06/14/19 14:51	70
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 12:44	1
Sulfate	870		300	84	mg/L			06/14/19 13:05	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.15				SU			05/29/19 09:44	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-08

Date Collected: 05/30/19 11:07
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0015**		0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 01:30	5
Barium	**0.060**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 01:30	5
Boron	**14**		0.50	0.21	mg/L		07/02/19 10:15	08/27/19 18:48	50
Calcium	**470**		2.5	1.3	mg/L		07/02/19 10:15	08/10/19 23:44	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 01:30	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 23:05	5
Lithium	**0.0089**		0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 01:30	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 01:30	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7700**		50	34	mg/L			05/31/19 09:35	1
Chloride	**3700**		200	140	mg/L			06/11/19 17:43	100
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 12:48	1
Sulfate	**940**		300	84	mg/L			06/14/19 13:09	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.51**				SU			05/30/19 11:07	1

Client Sample ID: MW-09

Date Collected: 05/30/19 08:47
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0038**		0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 01:54	5
Barium	**0.080**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 01:54	5
Boron	**10**		0.50	0.21	mg/L		07/02/19 10:15	08/27/19 18:54	50
Calcium	**230**		2.5	1.3	mg/L		07/02/19 10:15	08/11/19 00:17	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 01:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 23:10	5
Lithium	**0.0028**	**I**	0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 01:54	5
Molybdenum	**0.0023**	**I**	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 01:54	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4600**		50	34	mg/L			05/31/19 09:35	1
Chloride	**2100**		200	140	mg/L			06/11/19 17:46	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/31/19 12:51	1
Sulfate	**550**		300	84	mg/L			06/14/19 13:09	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.58**				SU			05/30/19 08:47	1

Client Sample ID: MW-10

Date Collected: 05/30/19 06:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0016**		0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 01:58	5
Barium	**0.096**		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 01:58	5
Boron	**10**		0.50	0.21	mg/L		07/02/19 10:15	08/27/19 18:59	50
Calcium	**440**		2.5	1.3	mg/L		07/02/19 10:15	08/11/19 00:22	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 01:58	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 23:16	5
Lithium	**0.0051**		0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 01:58	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 01:58	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5900**		50	34	mg/L			05/31/19 09:35	1
Chloride	**2600**		200	140	mg/L			06/11/19 17:46	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/31/19 12:55	1
Sulfate	**800**		300	84	mg/L			06/14/19 13:13	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.06**				SU			05/30/19 06:54	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-11

Date Collected: 05/29/19 14:43
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014		0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 02:02	5
Barium	0.17		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 02:02	5
Boron	4.1		0.50	0.21	mg/L		07/02/19 10:15	08/27/19 19:05	50
Calcium	190		2.5	1.3	mg/L		07/02/19 10:15	08/11/19 00:28	50
Chromium	0.0028		0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 02:02	5
Lead	0.0013		0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 23:21	5
Lithium	0.0021	I	0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 02:02	5
Molybdenum	0.0086	I	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 02:02	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5600		50	34	mg/L			05/31/19 09:35	1
Chloride	2900		200	140	mg/L			06/11/19 17:46	100
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 12:59	1
Sulfate	350		300	84	mg/L			06/14/19 13:05	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.40				SU			05/29/19 14:43	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-13

Date Collected: 05/29/19 11:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0010	I	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 02:06	5
Barium	0.077		0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 02:06	5
Boron	0.28		0.010	0.0042	mg/L		07/02/19 10:15	08/27/19 19:16	1
Calcium	640		2.5	1.3	mg/L		07/02/19 10:15	08/11/19 00:33	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 02:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 10:15	08/10/19 23:27	5
Lithium	0.18		0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 02:06	5
Molybdenum	0.010	I	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 02:06	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9200		130	85	mg/L			05/31/19 09:35	1
Chloride	4300		200	140	mg/L			06/11/19 17:46	100
Fluoride	0.040	I	0.10	0.032	mg/L			05/31/19 13:02	1
Sulfate	830		300	84	mg/L			06/14/19 13:05	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.96				SU			05/29/19 11:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-14
Date Collected: 05/30/19 09:48
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-8
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0055**		0.0013	0.00046	mg/L		07/02/19 09:30	08/02/19 00:01	5
Barium	**0.051**		0.0025	0.00049	mg/L		07/02/19 09:30	08/02/19 00:01	5
Boron	**14**		0.50	0.21	mg/L		07/02/19 09:30	08/27/19 19:43	50
Calcium	**230**		2.5	1.3	mg/L		07/02/19 09:30	08/03/19 16:45	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	08/02/19 00:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 00:01	5
Lithium	**0.0026**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 21:21	5
Molybdenum	**0.017**		0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 21:21	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4300**		50	34	mg/L			05/31/19 09:35	1
Chloride	**2000**		200	140	mg/L			06/11/19 17:53	100
Fluoride	**0.090**	**I**	0.10	0.032	mg/L			05/31/19 13:05	1
Sulfate	**550**		300	84	mg/L			06/14/19 13:13	60

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.96**				SU			05/30/19 09:48	1

Client Sample ID: DUP-02

Date Collected: 05/29/19 08:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0015	V	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 22:01	5
Barium	0.16		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 22:01	5
Boron	3.8		0.50	0.21	mg/L		07/02/19 09:30	08/27/19 19:49	50
Calcium	400		2.5	1.3	mg/L		07/02/19 09:30	08/03/19 16:50	50
Chromium	0.0015	I	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 22:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 00:51	5
Lithium	0.0027	I	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 22:01	5
Molybdenum	0.0042	I	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 22:01	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8600		50	34	mg/L			05/31/19 09:35	1
Chloride	3500		200	140	mg/L			06/11/19 17:54	100
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 13:17	1
Sulfate	870		300	84	mg/L			06/14/19 13:05	60

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: EB-01

Date Collected: 05/29/19 13:25
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 22:05	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 22:05	5
Boron	**0.57**		0.50	0.21	mg/L		07/02/19 09:30	08/27/19 19:54	50
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/02/19 00:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 22:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 00:57	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/03/19 16:56	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 22:05	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/31/19 09:35	1
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 13:24	1
Sulfate	**1.5**	**I**	5.0	1.4	mg/L			06/14/19 11:53	1

Client Sample ID: FB-01

Date Collected: 05/29/19 12:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-11

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 22:09	5
Barium	**0.0034**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 22:09	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 19:04	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/02/19 01:02	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 22:09	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 01:02	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 22:09	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 22:09	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/31/19 09:35	1
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 13:28	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/14/19 11:53	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: DUP-03
Date Collected: 05/30/19 05:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-12
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0017	V	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 22:13	5
Barium	0.10		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 22:13	5
Boron	10		0.50	0.21	mg/L		07/02/19 09:30	08/27/19 20:05	50
Calcium	430		2.5	1.3	mg/L		07/02/19 09:30	08/03/19 17:34	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 22:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 01:08	5
Lithium	0.0069		0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 22:13	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 22:13	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5500		50	34	mg/L			05/31/19 09:35	1
Chloride	2600		200	140	mg/L			06/11/19 17:54	100
Fluoride	0.050	I	0.10	0.032	mg/L			05/31/19 13:32	1
Sulfate	800		300	84	mg/L			06/14/19 13:13	60

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: FB-02

Date Collected: 05/30/19 09:45
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-13

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 22:17	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 22:17	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 19:09	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/02/19 01:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 22:17	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 01:13	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/02/19 01:13	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 22:17	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/31/19 09:35	1
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 13:36	1
Sulfate	**1.9**	**I**	5.0	1.4	mg/L			06/14/19 11:59	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: EB-02

Date Collected: 05/30/19 11:15
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-14

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 22:21	5
Barium	**0.00099**	**I**	0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 22:21	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/27/19 20:22	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/02/19 01:19	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 22:21	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 01:19	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/02/19 01:19	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 22:21	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/31/19 09:35	1
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 13:40	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/14/19 11:59	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-06
Date Collected: 05/29/19 08:29
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 01:22	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 22:54	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/10/19 23:33	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 18:37	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 18:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 12:35	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 08:29	MCS	TAL PEN

Client Sample ID: MW-07
Date Collected: 05/29/19 09:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 01:26	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 22:59	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/10/19 23:38	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 18:43	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		70	444534	06/14/19 14:51	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 12:44	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:05	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 09:44	MCS	TAL PEN

Client Sample ID: MW-08
Date Collected: 05/30/19 11:07
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 01:30	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 23:05	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/10/19 23:44	AC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-08
Date Collected: 05/30/19 11:07
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 18:48	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:43	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 12:48	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:09	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/30/19 11:07	MCS	TAL PEN

Client Sample ID: MW-09
Date Collected: 05/30/19 08:47
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 01:54	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 23:10	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/11/19 00:17	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 18:54	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 12:51	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:09	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/30/19 08:47	MCS	TAL PEN

Client Sample ID: MW-10
Date Collected: 05/30/19 06:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 01:58	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 23:16	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/11/19 00:22	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 18:59	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 12:55	BAB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-10
Date Collected: 05/30/19 06:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:13	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/30/19 06:54	MCS	TAL PEN

Client Sample ID: MW-11
Date Collected: 05/29/19 14:43
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 02:02	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 23:21	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/11/19 00:28	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 19:05	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 12:59	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:05	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 14:43	MCS	TAL PEN

Client Sample ID: MW-13
Date Collected: 05/29/19 11:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/10/19 02:06	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451881	08/10/19 23:27	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451881	08/11/19 00:33	AC	TAL PEN
Total Recoverable	Prep	3005A			446512	07/02/19 10:15	AW	TAL PEN
Total Recoverable	Analysis	6020		1	454434	08/27/19 19:16	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:05	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 11:00	MCS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: MW-14
Date Collected: 05/30/19 09:48
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 21:21	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 00:01	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451120	08/03/19 16:45	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 19:43	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:53	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:05	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:13	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/30/19 09:48	MCS	TAL PEN

Client Sample ID: DUP-02
Date Collected: 05/29/19 08:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 22:01	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 00:51	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451120	08/03/19 16:50	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 19:49	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:05	RRC	TAL PEN

Client Sample ID: EB-01
Date Collected: 05/29/19 13:25
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 22:05	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 00:57	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	451120	08/03/19 16:56	AC	TAL PEN

Client Sample ID: EB-01

Lab Sample ID: 400-170870-10

Date Collected: 05/29/19 13:25

Matrix: Water

Date Received: 05/30/19 14:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 19:54	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444098	06/11/19 17:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:24	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444516	06/14/19 11:53	RRC	TAL PEN

Client Sample ID: FB-01

Lab Sample ID: 400-170870-11

Date Collected: 05/29/19 12:00

Matrix: Water

Date Received: 05/30/19 14:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 22:09	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 01:02	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 19:04	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444098	06/11/19 17:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:28	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444516	06/14/19 11:53	RRC	TAL PEN

Client Sample ID: DUP-03

Lab Sample ID: 400-170870-12

Date Collected: 05/30/19 05:54

Matrix: Water

Date Received: 05/30/19 14:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 22:13	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 01:08	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	451120	08/03/19 17:34	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454434	08/27/19 20:05	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:32	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		60	444516	06/14/19 13:13	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Client Sample ID: FB-02

Date Collected: 05/30/19 09:45
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 22:17	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 01:13	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 19:09	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444098	06/11/19 17:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:36	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444516	06/14/19 11:59	RRC	TAL PEN

Client Sample ID: EB-02

Date Collected: 05/30/19 11:15
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 22:21	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 01:19	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 20:22	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444098	06/11/19 17:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:40	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444516	06/14/19 11:59	RRC	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 446508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-8	MW-14	Total Recoverable	Water	3005A	
400-170870-9	DUP-02	Total Recoverable	Water	3005A	
400-170870-10	EB-01	Total Recoverable	Water	3005A	
400-170870-11	FB-01	Total Recoverable	Water	3005A	
400-170870-12	DUP-03	Total Recoverable	Water	3005A	
400-170870-13	FB-02	Total Recoverable	Water	3005A	
400-170870-14	EB-02	Total Recoverable	Water	3005A	
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-446508/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-446508/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-170870-8 MS	MW-14	Total Recoverable	Water	3005A	
400-170870-8 MSD	MW-14	Total Recoverable	Water	3005A	

Prep Batch: 446512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total Recoverable	Water	3005A	
400-170870-2	MW-07	Total Recoverable	Water	3005A	
400-170870-3	MW-08	Total Recoverable	Water	3005A	
400-170870-4	MW-09	Total Recoverable	Water	3005A	
400-170870-5	MW-10	Total Recoverable	Water	3005A	
400-170870-6	MW-11	Total Recoverable	Water	3005A	
400-170870-7	MW-13	Total Recoverable	Water	3005A	
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-446512/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-90685-C-1-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
180-90685-C-1-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 447436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total Recoverable	Water	6020	446512
400-170870-2	MW-07	Total Recoverable	Water	6020	446512
400-170870-3	MW-08	Total Recoverable	Water	6020	446512
400-170870-4	MW-09	Total Recoverable	Water	6020	446512
400-170870-5	MW-10	Total Recoverable	Water	6020	446512
400-170870-6	MW-11	Total Recoverable	Water	6020	446512
400-170870-7	MW-13	Total Recoverable	Water	6020	446512
400-170870-8	MW-14	Total Recoverable	Water	6020	446508
400-170870-9	DUP-02	Total Recoverable	Water	6020	446508
400-170870-10	EB-01	Total Recoverable	Water	6020	446508
400-170870-11	FB-01	Total Recoverable	Water	6020	446508
400-170870-12	DUP-03	Total Recoverable	Water	6020	446508
400-170870-13	FB-02	Total Recoverable	Water	6020	446508
400-170870-14	EB-02	Total Recoverable	Water	6020	446508
MB 400-446508/1-A ^5	Method Blank	Total Recoverable	Water	6020	446508
MB 400-446512/1-A ^5	Method Blank	Total Recoverable	Water	6020	446512
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	6020	446512
180-90685-C-1-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	446512
180-90685-C-1-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	446512

Metals (Continued)

Analysis Batch: 447436 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-8 MS	MW-14	Total Recoverable	Water	6020	446508
400-170870-8 MSD	MW-14	Total Recoverable	Water	6020	446508

Analysis Batch: 450551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-8	MW-14	Total Recoverable	Water	6020	446508
400-170870-9	DUP-02	Total Recoverable	Water	6020	446508
400-170870-10	EB-01	Total Recoverable	Water	6020	446508
400-170870-11	FB-01	Total Recoverable	Water	6020	446508
400-170870-12	DUP-03	Total Recoverable	Water	6020	446508
400-170870-13	FB-02	Total Recoverable	Water	6020	446508
400-170870-14	EB-02	Total Recoverable	Water	6020	446508
MB 400-446508/1-A ^5	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	446508
400-170870-8 MS	MW-14	Total Recoverable	Water	6020	446508
400-170870-8 MSD	MW-14	Total Recoverable	Water	6020	446508

Analysis Batch: 451120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-8	MW-14	Total Recoverable	Water	6020	446508
400-170870-9	DUP-02	Total Recoverable	Water	6020	446508
400-170870-10	EB-01	Total Recoverable	Water	6020	446508
400-170870-12	DUP-03	Total Recoverable	Water	6020	446508
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	446508

Analysis Batch: 451275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	6020	446512

Analysis Batch: 451881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total Recoverable	Water	6020	446512
400-170870-1	MW-06	Total Recoverable	Water	6020	446512
400-170870-2	MW-07	Total Recoverable	Water	6020	446512
400-170870-2	MW-07	Total Recoverable	Water	6020	446512
400-170870-3	MW-08	Total Recoverable	Water	6020	446512
400-170870-3	MW-08	Total Recoverable	Water	6020	446512
400-170870-4	MW-09	Total Recoverable	Water	6020	446512
400-170870-4	MW-09	Total Recoverable	Water	6020	446512
400-170870-5	MW-10	Total Recoverable	Water	6020	446512
400-170870-5	MW-10	Total Recoverable	Water	6020	446512
400-170870-6	MW-11	Total Recoverable	Water	6020	446512
400-170870-6	MW-11	Total Recoverable	Water	6020	446512
400-170870-7	MW-13	Total Recoverable	Water	6020	446512
400-170870-7	MW-13	Total Recoverable	Water	6020	446512
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	6020	446512
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	6020	446512

Metals

Analysis Batch: 454169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	6020	446512
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	6020	446512

Analysis Batch: 454434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total Recoverable	Water	6020	446512
400-170870-2	MW-07	Total Recoverable	Water	6020	446512
400-170870-3	MW-08	Total Recoverable	Water	6020	446512
400-170870-4	MW-09	Total Recoverable	Water	6020	446512
400-170870-5	MW-10	Total Recoverable	Water	6020	446512
400-170870-6	MW-11	Total Recoverable	Water	6020	446512
400-170870-7	MW-13	Total Recoverable	Water	6020	446512
400-170870-8	MW-14	Total Recoverable	Water	6020	446508
400-170870-9	DUP-02	Total Recoverable	Water	6020	446508
400-170870-10	EB-01	Total Recoverable	Water	6020	446508
400-170870-12	DUP-03	Total Recoverable	Water	6020	446508
400-170870-14	EB-02	Total Recoverable	Water	6020	446508
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
MB 400-446512/1-A	Method Blank	Total Recoverable	Water	6020	446512
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508
LCS 400-446512/2-A	Lab Control Sample	Total Recoverable	Water	6020	446512

Analysis Batch: 454608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-11	FB-01	Total Recoverable	Water	6020	446508
400-170870-13	FB-02	Total Recoverable	Water	6020	446508
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508

General Chemistry

Analysis Batch: 442778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	SM 2540C	
400-170870-2	MW-07	Total/NA	Water	SM 2540C	
400-170870-3	MW-08	Total/NA	Water	SM 2540C	
400-170870-4	MW-09	Total/NA	Water	SM 2540C	
400-170870-5	MW-10	Total/NA	Water	SM 2540C	
400-170870-6	MW-11	Total/NA	Water	SM 2540C	
400-170870-7	MW-13	Total/NA	Water	SM 2540C	
400-170870-8	MW-14	Total/NA	Water	SM 2540C	
400-170870-9	DUP-02	Total/NA	Water	SM 2540C	
400-170870-10	EB-01	Total/NA	Water	SM 2540C	
400-170870-11	FB-01	Total/NA	Water	SM 2540C	
400-170870-12	DUP-03	Total/NA	Water	SM 2540C	
400-170870-13	FB-02	Total/NA	Water	SM 2540C	
400-170870-14	EB-02	Total/NA	Water	SM 2540C	
MB 400-442778/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-442778/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 442778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-170869-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 442822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	SM 4500 F C	
400-170870-2	MW-07	Total/NA	Water	SM 4500 F C	
400-170870-3	MW-08	Total/NA	Water	SM 4500 F C	
400-170870-4	MW-09	Total/NA	Water	SM 4500 F C	
400-170870-5	MW-10	Total/NA	Water	SM 4500 F C	
400-170870-6	MW-11	Total/NA	Water	SM 4500 F C	
400-170870-7	MW-13	Total/NA	Water	SM 4500 F C	
400-170870-8	MW-14	Total/NA	Water	SM 4500 F C	
400-170870-9	DUP-02	Total/NA	Water	SM 4500 F C	
400-170870-10	EB-01	Total/NA	Water	SM 4500 F C	
400-170870-11	FB-01	Total/NA	Water	SM 4500 F C	
400-170870-12	DUP-03	Total/NA	Water	SM 4500 F C	
400-170870-13	FB-02	Total/NA	Water	SM 4500 F C	
400-170870-14	EB-02	Total/NA	Water	SM 4500 F C	
MB 400-442822/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-442822/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-170870-1 MS	MW-06	Total/NA	Water	SM 4500 F C	
400-170870-1 MSD	MW-06	Total/NA	Water	SM 4500 F C	
400-170870-9 DU	DUP-02	Total/NA	Water	SM 4500 F C	

Analysis Batch: 444098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	SM 4500 Cl- E	
400-170870-3	MW-08	Total/NA	Water	SM 4500 Cl- E	
400-170870-4	MW-09	Total/NA	Water	SM 4500 Cl- E	
400-170870-5	MW-10	Total/NA	Water	SM 4500 Cl- E	
400-170870-6	MW-11	Total/NA	Water	SM 4500 Cl- E	
400-170870-7	MW-13	Total/NA	Water	SM 4500 Cl- E	
400-170870-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
400-170870-9	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-170870-10	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-170870-11	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-170870-12	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-170870-13	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-170870-14	EB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-444098/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444098/50	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444098/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-170870-1 MS	MW-06	Total/NA	Water	SM 4500 Cl- E	
400-170870-1 MSD	MW-06	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 444516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	SM 4500 SO4 E	
400-170870-2	MW-07	Total/NA	Water	SM 4500 SO4 E	
400-170870-3	MW-08	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 444516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-4	MW-09	Total/NA	Water	SM 4500 SO4 E	
400-170870-5	MW-10	Total/NA	Water	SM 4500 SO4 E	
400-170870-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
400-170870-7	MW-13	Total/NA	Water	SM 4500 SO4 E	
400-170870-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
400-170870-9	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-170870-10	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-170870-11	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-170870-12	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-170870-13	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-170870-14	EB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-444516/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444516/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444516/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-170943-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-170943-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-171447-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-171447-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-2	MW-07	Total/NA	Water	SM 4500 Cl- E	
MB 400-444534/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444534/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444534/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-171069-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-171069-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 445775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	Field Sampling	
400-170870-2	MW-07	Total/NA	Water	Field Sampling	
400-170870-3	MW-08	Total/NA	Water	Field Sampling	
400-170870-4	MW-09	Total/NA	Water	Field Sampling	
400-170870-5	MW-10	Total/NA	Water	Field Sampling	
400-170870-6	MW-11	Total/NA	Water	Field Sampling	
400-170870-7	MW-13	Total/NA	Water	Field Sampling	
400-170870-8	MW-14	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 451120

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	08/03/19 16:33	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	08/03/19 16:33	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/03/19 16:33	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	08/03/19 16:33	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/03/19 16:33	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/03/19 16:33	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	08/03/19 16:33	5

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 451275

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 09:30	08/06/19 22:35	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 09:30	08/06/19 22:35	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/06/19 22:35	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/06/19 22:35	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/06/19 22:35	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/06/19 22:35	1

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 451881

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 09:30	08/11/19 00:44	1
Barium	0.00290		0.00050	0.000098	mg/L		07/02/19 09:30	08/11/19 00:44	1
Calcium	6.71		0.050	0.025	mg/L		07/02/19 09:30	08/11/19 00:44	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/11/19 00:44	1
Lithium	0.000362	I	0.0010	0.00022	mg/L		07/02/19 09:30	08/11/19 00:44	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/11/19 00:44	1

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000126	I	0.00025	0.000092	mg/L		07/02/19 09:30	08/26/19 17:25	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 09:30	08/26/19 17:25	1
Calcium	0.0301	I	0.050	0.025	mg/L		07/02/19 09:30	08/26/19 17:25	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/26/19 17:25	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/26/19 17:25	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/26/19 17:25	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/26/19 17:25	1

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

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 09:30	08/27/19 19:21	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 09:30	08/27/19 19:21	1
Boron	0.0186		0.010	0.0042	mg/L		07/02/19 09:30	08/27/19 19:21	1
Calcium	0.0395	I	0.050	0.025	mg/L		07/02/19 09:30	08/27/19 19:21	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/27/19 19:21	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/27/19 19:21	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/27/19 19:21	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/27/19 19:21	1

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000385	I	0.00050	0.000098	mg/L		07/02/19 09:30	08/28/19 18:47	1
Boron	0.0195		0.010	0.0042	mg/L		07/02/19 09:30	08/28/19 18:47	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 09:30	08/28/19 18:47	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/28/19 18:47	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/28/19 18:47	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/28/19 18:47	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/28/19 18:47	1

Lab Sample ID: MB 400-446508/1-A ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000715	I	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 21:13	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 21:13	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	07/09/19 21:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 21:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	07/09/19 21:13	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 21:13	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 21:13	5

Lab Sample ID: MB 400-446508/1-A ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	08/01/19 23:50	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	08/01/19 23:50	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/01/19 23:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	08/01/19 23:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/01/19 23:50	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/01/19 23:50	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	08/01/19 23:50	5

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

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0525		mg/L		105	80 - 120
Barium	0.0500	0.0502		mg/L		100	80 - 120
Chromium	0.0500	0.0538		mg/L		108	80 - 120
Lead	0.0500	0.0488		mg/L		98	80 - 120
Lithium	0.0500	0.0547		mg/L		109	80 - 120
Molybdenum	0.0500	0.0465		mg/L		93	80 - 120

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0514		mg/L		103	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Boron	0.100	0.120		mg/L		120	80 - 120
Calcium	1.00	1.07		mg/L		107	80 - 120
Chromium	0.0500	0.0512		mg/L		102	80 - 120
Lead	0.0500	0.0492		mg/L		98	80 - 120
Lithium	0.0500	0.0506		mg/L		101	80 - 120
Molybdenum	0.0500	0.0478		mg/L		96	80 - 120

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0541		mg/L		108	80 - 120
Barium	0.0500	0.0488		mg/L		98	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Calcium	1.00	1.09		mg/L		109	80 - 120
Chromium	0.0500	0.0511		mg/L		102	80 - 120
Lead	0.0500	0.0515		mg/L		103	80 - 120
Lithium	0.0500	0.0538		mg/L		108	80 - 120
Molybdenum	0.0500	0.0494		mg/L		99	80 - 120

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.0500	0.0485		mg/L		97	80 - 120
Boron	0.100	0.110		mg/L		109	80 - 120
Calcium	1.00	1.06		mg/L		106	80 - 120
Chromium	0.0500	0.0492		mg/L		98	80 - 120
Lead	0.0500	0.0521		mg/L		104	80 - 120
Lithium	0.0500	0.0493		mg/L		99	80 - 120
Molybdenum	0.0500	0.0459		mg/L		92	80 - 120

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

Lab Sample ID: LCS 400-446508/2-A ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0504		mg/L		101	80 - 120
Calcium	1.00	0.930		mg/L		93	80 - 120
Chromium	0.0500	0.0510		mg/L		102	80 - 120
Lead	0.0500	0.0495		mg/L		99	80 - 120
Lithium	0.0500	0.0479		mg/L		96	80 - 120
Molybdenum	0.0500	0.0484		mg/L		97	80 - 120

Lab Sample ID: LCS 400-446508/2-A ^5
Matrix: Water
Analysis Batch: 451120

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0522		mg/L		104	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Calcium	1.00	1.05		mg/L		105	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120
Lead	0.0500	0.0498		mg/L		100	80 - 120
Lithium	0.0500	0.0464		mg/L		93	80 - 120
Molybdenum	0.0500	0.0476		mg/L		95	80 - 120

Lab Sample ID: 400-170870-8 MS
Matrix: Water
Analysis Batch: 447436

Client Sample ID: MW-14
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.26	J3	0.0500	0.0527	J3	mg/L		-419	75 - 125
Barium	0.24	J3	0.0500	0.105	J3	mg/L		-271	75 - 125
Chromium	0.25	J3	0.0500	0.0447	J3	mg/L		-419	75 - 125
Lithium	0.26	J3	0.0500	0.0545	J3	mg/L		-404	75 - 125
Molybdenum	0.24	J3	0.0500	0.0649	J3	mg/L		-351	75 - 125

Lab Sample ID: 400-170870-8 MS
Matrix: Water
Analysis Batch: 450551

Client Sample ID: MW-14
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0055		0.0500	0.0548		mg/L		99	75 - 125
Barium	0.051		0.0500	0.104		mg/L		106	75 - 125
Chromium	0.0011	U	0.0500	0.0475		mg/L		95	75 - 125
Lead	0.00035	U	0.0500	0.0519		mg/L		104	75 - 125
Lithium	0.0026	I	0.0500	0.0477		mg/L		90	75 - 125
Molybdenum	0.015		0.0500	0.0612		mg/L		93	75 - 125

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

Lab Sample ID: 400-170870-8 MSD
Matrix: Water
Analysis Batch: 447436

Client Sample ID: MW-14
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.26	J3	0.0500	0.0544	J3	mg/L		-416	75 - 125	3	20
Barium	0.24	J3	0.0500	0.107	J3	mg/L		-267	75 - 125	2	20
Chromium	0.25	J3	0.0500	0.0461	J3	mg/L		-417	75 - 125	3	20
Lithium	0.26	J3	0.0500	0.0557	J3	mg/L		-402	75 - 125	2	20
Molybdenum	0.24	J3	0.0500	0.0664	J3	mg/L		-348	75 - 125	2	20

Lab Sample ID: 400-170870-8 MSD
Matrix: Water
Analysis Batch: 450551

Client Sample ID: MW-14
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0055		0.0500	0.0529		mg/L		95	75 - 125	4	20
Barium	0.051		0.0500	0.0995		mg/L		97	75 - 125	4	20
Chromium	0.0011	U	0.0500	0.0456		mg/L		91	75 - 125	4	20
Lead	0.00035	U	0.0500	0.0519		mg/L		104	75 - 125	0	20
Lithium	0.0026	I	0.0500	0.0482		mg/L		91	75 - 125	1	20
Molybdenum	0.015		0.0500	0.0593		mg/L		89	75 - 125	3	20

Lab Sample ID: MB 400-446512/1-A
Matrix: Water
Analysis Batch: 451275

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 10:15	08/06/19 21:12	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 10:15	08/06/19 21:12	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 10:15	08/06/19 21:12	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 10:15	08/06/19 21:12	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 10:15	08/06/19 21:12	1

Lab Sample ID: MB 400-446512/1-A
Matrix: Water
Analysis Batch: 451881

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000317		0.00025	0.000092	mg/L		07/02/19 10:15	08/10/19 22:15	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 10:15	08/10/19 22:15	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 10:15	08/10/19 22:15	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 10:15	08/10/19 22:15	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 10:15	08/10/19 22:15	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 10:15	08/10/19 22:15	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 10:15	08/10/19 22:15	1

Lab Sample ID: MB 400-446512/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 10:15	08/26/19 16:36	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 10:15	08/26/19 16:36	1

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

Lab Sample ID: MB 400-446512/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00621	I	0.010	0.0042	mg/L		07/02/19 10:15	08/26/19 16:36	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 10:15	08/26/19 16:36	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 10:15	08/26/19 16:36	1
Lead	0.0000790	I	0.00025	0.000070	mg/L		07/02/19 10:15	08/26/19 16:36	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 10:15	08/26/19 16:36	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 10:15	08/26/19 16:36	1

Lab Sample ID: MB 400-446512/1-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 10:15	08/27/19 18:26	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 10:15	08/27/19 18:26	1
Boron	0.0042	U	0.010	0.0042	mg/L		07/02/19 10:15	08/27/19 18:26	1
Calcium	0.0273	I	0.050	0.025	mg/L		07/02/19 10:15	08/27/19 18:26	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 10:15	08/27/19 18:26	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 10:15	08/27/19 18:26	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 10:15	08/27/19 18:26	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 10:15	08/27/19 18:26	1

Lab Sample ID: MB 400-446512/1-A ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 10:15	07/10/19 00:01	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 10:15	07/10/19 00:01	5
Calcium	0.414		0.25	0.13	mg/L		07/02/19 10:15	07/10/19 00:01	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 10:15	07/10/19 00:01	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 10:15	07/10/19 00:01	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 10:15	07/10/19 00:01	5

Lab Sample ID: LCS 400-446512/2-A
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0509		mg/L		102	80 - 120
Barium	0.0500	0.0507		mg/L		101	80 - 120
Calcium	1.00	1.04		mg/L		104	80 - 120
Chromium	0.0500	0.0519		mg/L		104	80 - 120
Lithium	0.0500	0.0522		mg/L		104	80 - 120
Molybdenum	0.0500	0.0462		mg/L		92	80 - 120

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

Lab Sample ID: LCS 400-446512/2-A
Matrix: Water
Analysis Batch: 451881

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0480		mg/L		96	80 - 120
Calcium	1.00	1.04		mg/L		104	80 - 120
Lead	0.0500	0.0482		mg/L		96	80 - 120
Lithium	0.0500	0.0511		mg/L		102	80 - 120
Molybdenum	0.0500	0.0491		mg/L		98	80 - 120

Lab Sample ID: LCS 400-446512/2-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0513		mg/L		103	80 - 120
Barium	0.0500	0.0481		mg/L		96	80 - 120
Boron	0.100	0.102		mg/L		102	80 - 120
Calcium	1.00	1.06		mg/L		106	80 - 120
Chromium	0.0500	0.0507		mg/L		101	80 - 120
Lead	0.0500	0.0486		mg/L		97	80 - 120
Lithium	0.0500	0.0511		mg/L		102	80 - 120
Molybdenum	0.0500	0.0472		mg/L		94	80 - 120

Lab Sample ID: LCS 400-446512/2-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0573		mg/L		115	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Boron	0.100	0.0916		mg/L		92	80 - 120
Calcium	1.00	1.14		mg/L		114	80 - 120
Chromium	0.0500	0.0532		mg/L		106	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0507		mg/L		101	80 - 120
Molybdenum	0.0500	0.0506		mg/L		101	80 - 120

Lab Sample ID: 180-90685-C-1-E MS ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00095	I	0.0500	0.0529		mg/L		104	75 - 125
Barium	0.070		0.0500	0.117		mg/L		94	75 - 125
Calcium	12		1.00	13.3		mg/L		77	75 - 125
Chromium	0.0011	U	0.0500	0.0488		mg/L		98	75 - 125
Lithium	0.011		0.0500	0.0627		mg/L		103	75 - 125
Molybdenum	0.0020	U	0.0500	0.0480		mg/L		96	75 - 125

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

Lab Sample ID: 180-90685-C-1-F MSD ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446512

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00095	I	0.0500	0.0524		mg/L		103	75 - 125	1	20
Barium	0.070		0.0500	0.121		mg/L		102	75 - 125	3	20
Calcium	12		1.00	13.2	J3	mg/L		68	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0490		mg/L		98	75 - 125	0	20
Lithium	0.011		0.0500	0.0611		mg/L		100	75 - 125	3	20
Molybdenum	0.0020	U	0.0500	0.0470		mg/L		94	75 - 125	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-442778/1
Matrix: Water
Analysis Batch: 442778

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/31/19 09:35	1

Lab Sample ID: LCS 400-442778/2
Matrix: Water
Analysis Batch: 442778

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	288		mg/L		98	78 - 122

Lab Sample ID: 400-170869-A-1 DU
Matrix: Water
Analysis Batch: 442778

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	770		796		mg/L		3	5

Lab Sample ID: 400-170869-A-2 DU
Matrix: Water
Analysis Batch: 442778

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	4200		4130		mg/L		0.7	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-444098/5
Matrix: Water
Analysis Batch: 444098

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:16	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 400-444098/50
Matrix: Water
Analysis Batch: 444098

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.8		mg/L		109	90 - 110

Lab Sample ID: MRL 400-444098/3
Matrix: Water
Analysis Batch: 444098

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.26	I	mg/L		63	50 - 150

Lab Sample ID: 400-170870-1 MS
Matrix: Water
Analysis Batch: 444098

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2800		10.0	2730	J3	mg/L		-1060	73 - 120

Lab Sample ID: 400-170870-1 MSD
Matrix: Water
Analysis Batch: 444098

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2800		10.0	2770	J3	mg/L		-659	73 - 120	1	8

Lab Sample ID: MB 400-444534/6
Matrix: Water
Analysis Batch: 444534

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/14/19 14:21	1

Lab Sample ID: LCS 400-444534/7
Matrix: Water
Analysis Batch: 444534

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.8		mg/L		103	90 - 110

Lab Sample ID: MRL 400-444534/3
Matrix: Water
Analysis Batch: 444534

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.83	I	mg/L		92	50 - 150

Lab Sample ID: 400-171069-D-1 MS
Matrix: Water
Analysis Batch: 444534

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	270		10.0	270	J3	mg/L		2	73 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 400-171069-D-1 MSD
Matrix: Water
Analysis Batch: 444534

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	270		10.0	271	J3	mg/L		12	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-442822/3
Matrix: Water
Analysis Batch: 442822

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 12:15	1

Lab Sample ID: LCS 400-442822/4
Matrix: Water
Analysis Batch: 442822

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.61		mg/L		90	90 - 110

Lab Sample ID: 400-170870-1 MS
Matrix: Water
Analysis Batch: 442822

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.050	I	1.00	0.930		mg/L		88	75 - 125

Lab Sample ID: 400-170870-1 MSD
Matrix: Water
Analysis Batch: 442822

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	I	1.00	0.940		mg/L		89	75 - 125	1	4

Lab Sample ID: 400-170870-9 DU
Matrix: Water
Analysis Batch: 442822

Client Sample ID: DUP-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-444516/6
Matrix: Water
Analysis Batch: 444516

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/14/19 11:46	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-444516/7
Matrix: Water
Analysis Batch: 444516

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.4		mg/L		103	90 - 110

Lab Sample ID: MRL 400-444516/3
Matrix: Water
Analysis Batch: 444516

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.46	I	mg/L		89	50 - 150

Lab Sample ID: 400-170943-A-2 MS
Matrix: Water
Analysis Batch: 444516

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	140		10.0	142	J3	mg/L		16	77 - 128

Lab Sample ID: 400-170943-A-2 MSD
Matrix: Water
Analysis Batch: 444516

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	140		1000	140	J3	mg/L		-0.04	77 - 128	1	5

Lab Sample ID: 400-171447-B-1 MS
Matrix: Water
Analysis Batch: 444516

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	170		10.0	170	J3	mg/L		43	77 - 128

Lab Sample ID: 400-171447-B-1 MSD
Matrix: Water
Analysis Batch: 444516

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	170		10.0	168	J3	mg/L		24	77 - 128	1	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Sutles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1-2
Company: Gulf Power Company				Job #: 170870

Address: BIN 731 One Energy Place	Due Date Requested:	Analysis Requ
City: Pensacola	TAT Requested (days):	
State, Zip: FL, 32520		
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required	
Email: richard.markey@nexteraenergy.com	WO #:	
Project Name: CCR Smith Plant	Project #: 40006609	
Site: Downgradient	SSOW#:	

400-170870 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-06	5-29-19	0829	G	Water			X	X	X	X		
MW-07	5-29-19	0944	G	Water			X	X	X	X		
MW-08	5/30/19	1107	G	Water			X	X	X	X		
MW-09	5/30/19	0847	G	Water			X	X	X	X		
MW-10	5/30/19	0654	G	Water			X	X	X	X		
MW-11	5-29-19	1443	G	Water			X	X	X	X		
MW-13	5-29-19	1100	G	Water			X	X	X	X		
MW-14	5/30/19	0948	G	Water			X	X	X	X		
DUP-02	5-29-19	0844	G	W			X	X	X			
EB-01	5-29-19	1325	G	W			X	X	X			
FB-01	5-29-19	1200	G	W			X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5/30/19 1437	[illegible]	Kathy R Avery	5-30-19 1437	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1, 2.8, 1.9°C IR7

9/11/2019

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 2-2
Company: Gulf Power Company				Job #: 170870
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Downgradient	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
~~MW-06~~ Dup-03	5/30/19	0554	G	Water			X	X	X	X		
~~MW-07~~ FB-02	5/30/19	0945	G	Water			X	X	X	X		
~~MW-08~~ EB-02	5/30/19	1115	G	Water			X	X	X	X		
~~MW-09~~				Water								
~~MW-10~~				Water								
~~MW-11~~				Water								
~~MW-13~~				Water								
~~MW-14~~				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/30/19 1437	KOII		5-30-19 1437	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

9/11/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170870-1
SDG Number: Downgradient

Login Number: 170870
List Number: 1
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1, 2.8, 1.9°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-1
SDG: Downgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State Program	88-0689	09-01-20
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-19
Oklahoma	State Program	9810	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	09-30-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170870-2
Laboratory Sample Delivery Group: Downgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/21/2019 5:55:47 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-170870-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170870-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-431743. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-08 (400-170870-3), MW-09 (400-170870-4), MW-10 (400-170870-5), MW-11 (400-170870-6), MW-13 (400-170870-7), MW-14 (400-170870-8), DUP-02 (400-170870-9), EB-01 (400-170870-10), FB-01 (400-170870-11), DUP-03 (400-170870-12), FB-02 (400-170870-13), EB-02 (400-170870-14), (LCS 160-431743/1-A), (MB 160-431743/23-A), (180-90460-B-1-A) and (180-90460-A-1-A DU)

Method(s) 9315: Ra-226 Prep Batch 160-431495. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-06 (400-170870-1), MW-07 (400-170870-2), (LCS 160-431495/1-A), (MB 160-431495/23-A), (400-170707-A-18-A) and (400-170707-B-18-A DU)

Method(s) 9320: Ra-228 Prep Batch 160-431600. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-06 (400-170870-1), MW-07 (400-170870-2), (LCS 160-431600/1-A), (MB 160-431600/23-A), (400-170707-A-18-B) and (400-170707-B-18-B DU)

Method(s) 9320: Ra-228 Prep Batch: 160-431783. The relative percent difference (RPD) and replicate error ratio (RER) are outside of the acceptance limits of 40%/1 for Ra-228; (347%/1.81). Both the sample and duplicate activity are less than the MDC. The data have been reported with this narrative. MW-08 (400-170870-3), MW-09 (400-170870-4), MW-10 (400-170870-5), MW-11 (400-170870-6), MW-13 (400-170870-7), MW-14 (400-170870-8), DUP-02 (400-170870-9), EB-01 (400-170870-10), FB-01 (400-170870-11), DUP-03 (400-170870-12), FB-02 (400-170870-13), EB-02 (400-170870-14), (LCS 160-431783/1-A), (MB 160-431783/23-A), (180-90460-B-1-C) and (180-90460-A-1-C DU)

Method(s) 9320: Ra-228 Prep Batch 160-431783. The following samples did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 160-169811, -169810). The data have been reported with this narrative. (180-90460-A-1-C DU)

Method(s) 9320: Ra-228 Prep Batch 160-431783. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-08 (400-170870-3), MW-09 (400-170870-4), MW-10 (400-170870-5), MW-11 (400-170870-6), MW-13 (400-170870-7), MW-14 (400-170870-8), DUP-02 (400-170870-9), EB-01 (400-170870-10), FB-01 (400-170870-11), DUP-03 (400-170870-12), FB-02 (400-170870-13), EB-02 (400-170870-14), (LCS 160-431783/1-A), (MB 160-431783/23-A), (180-90460-B-1-C) and (180-90460-A-1-C DU)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431600. The following samples were prepared at a reduced aliquot due to yellow and cloudy discoloration: MW-07 (400-170870-2).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431783. The following samples were prepared at a reduced aliquot due to discoloration and heavy sediment levels: MW-11 (400-170870-6) and DUP-02 (400-170870-9).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431495. The following samples were prepared at a reduced aliquot due to yellow and cloudy discoloration: MW-07 (400-170870-2).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431743. The following samples were prepared at a reduced aliquot due to discoloration and heavy sediment levels: MW-11 (400-170870-6) and DUP-02 (400-170870-9).

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170870-1	MW-06	Water	05/29/19 08:29	05/30/19 14:37	
400-170870-2	MW-07	Water	05/29/19 09:44	05/30/19 14:37	
400-170870-3	MW-08	Water	05/30/19 11:07	05/30/19 14:37	
400-170870-4	MW-09	Water	05/30/19 08:47	05/30/19 14:37	
400-170870-5	MW-10	Water	05/30/19 06:54	05/30/19 14:37	
400-170870-6	MW-11	Water	05/29/19 14:43	05/30/19 14:37	
400-170870-7	MW-13	Water	05/29/19 11:00	05/30/19 14:37	
400-170870-8	MW-14	Water	05/30/19 09:48	05/30/19 14:37	
400-170870-9	DUP-02	Water	05/29/19 08:44	05/30/19 14:37	
400-170870-10	EB-01	Water	05/29/19 13:25	05/30/19 14:37	
400-170870-11	FB-01	Water	05/29/19 12:00	05/30/19 14:37	
400-170870-12	DUP-03	Water	05/30/19 05:54	05/30/19 14:37	
400-170870-13	FB-02	Water	05/30/19 09:45	05/30/19 14:37	
400-170870-14	EB-02	Water	05/30/19 11:15	05/30/19 14:37	

Client Sample ID: MW-06

Date Collected: 05/29/19 08:29
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	7.61		0.444	0.816	1.00	0.121	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	17.1		0.997	1.86	1.00	0.465	pCi/L	06/13/19 11:01	07/22/19 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:54*	*1*
Y Carrier	*77.0*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	24.7		1.09	2.03	5.00	0.465	pCi/L		08/15/19 08:21	1

Client Sample ID: MW-07

Date Collected: 05/29/19 09:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	38.4		1.16	3.65	1.00	0.153	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.3		1.07	1.49	1.00	0.806	pCi/L	06/13/19 11:01	07/22/19 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:54*	*1*
Y Carrier	*60.9*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	49.7		1.58	3.94	5.00	0.806	pCi/L		08/15/19 08:21	1

Client Sample ID: MW-08

Date Collected: 05/30/19 11:07
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	10.4		0.548	1.09	1.00	0.103	pCi/L	06/14/19 10:26	08/05/19 22:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*06/14/19 10:26*	*08/05/19 22:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	19.2		1.01	2.03	1.00	0.472	pCi/L	06/14/19 14:38	07/23/19 09:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*
Y Carrier	*84.9*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	29.6		1.15	2.30	5.00	0.472	pCi/L		08/07/19 08:30	1

Client Sample ID: MW-09

Date Collected: 05/30/19 08:47
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.28		0.407	0.696	1.00	0.106	pCi/L	06/14/19 10:26	08/06/19 10:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.69		0.503	0.663	1.00	0.419	pCi/L	06/14/19 14:38	07/23/19 09:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*
Y Carrier	*88.6*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	11.0		0.647	0.961	5.00	0.419	pCi/L		08/07/19 08:30	1

Client Sample ID: MW-10

Date Collected: 05/30/19 06:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	4.91		0.365	0.573	1.00	0.112	pCi/L	06/14/19 10:26	08/06/19 10:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.6*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	12.2		0.737	1.34	1.00	0.389	pCi/L	06/14/19 14:38	07/23/19 09:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.6*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*
Y Carrier	*89.7*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	17.1		0.822	1.46	5.00	0.389	pCi/L		08/07/19 08:30	1

Client Sample ID: MW-11

Date Collected: 05/29/19 14:43
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	29.3		1.24	2.92	1.00	0.189	pCi/L	06/14/19 10:26	08/06/19 10:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.88		0.918	1.17	1.00	0.724	pCi/L	06/14/19 14:38	07/23/19 09:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*
Y Carrier	*86.4*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	37.2		1.54	3.15	5.00	0.724	pCi/L		08/07/19 08:30	1

Client Sample ID: MW-13

Date Collected: 05/29/19 11:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.36		0.370	0.608	1.00	0.0958	pCi/L	06/14/19 10:26	08/06/19 10:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.62		0.505	0.722	1.00	0.332	pCi/L	06/14/19 14:38	07/23/19 09:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*
Y Carrier	*90.8*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	11.0		0.626	0.944	5.00	0.332	pCi/L		08/07/19 08:30	1

Client Sample ID: MW-14

Date Collected: 05/30/19 09:48
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.36		0.189	0.225	1.00	0.103	pCi/L	06/14/19 10:26	08/06/19 10:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.53		0.360	0.429	1.00	0.338	pCi/L	06/14/19 14:38	07/23/19 09:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*
Y Carrier	*94.2*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.89		0.407	0.484	5.00	0.338	pCi/L		08/07/19 08:30	1

Client Sample ID: DUP-02

Date Collected: 05/29/19 08:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	40.3		1.43	3.90	1.00	0.234	pCi/L	06/14/19 10:26	08/06/19 10:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:38*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.88		0.871	1.13	1.00	0.654	pCi/L	06/14/19 14:38	07/23/19 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*
Y Carrier	*90.8*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	48.2		1.67	4.06	5.00	0.654	pCi/L		08/07/19 08:30	1

Client Sample ID: EB-01

Date Collected: 05/29/19 13:25
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0750	U	0.0352	0.0358	1.00	0.111	pCi/L	06/14/19 10:26	08/06/19 10:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:38*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0334	U	0.184	0.184	1.00	0.327	pCi/L	06/14/19 14:38	07/23/19 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*
Y Carrier	*92.0*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0417	U	0.187	0.187	5.00	0.327	pCi/L		08/07/19 08:30	1

Client Sample ID: FB-01

Date Collected: 05/29/19 12:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0537	U	0.0572	0.0574	1.00	0.0903	pCi/L	06/14/19 10:26	08/06/19 10:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:41*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.107	U	0.186	0.186	1.00	0.356	pCi/L	06/14/19 14:38	07/23/19 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*
Y Carrier	*90.1*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0535	U	0.195	0.195	5.00	0.356	pCi/L		08/07/19 08:30	1

Client Sample ID: DUP-03

Date Collected: 05/30/19 05:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.20		0.401	0.616	1.00	0.125	pCi/L	06/14/19 10:26	08/06/19 10:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:41*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	12.2		0.746	1.35	1.00	0.365	pCi/L	06/14/19 14:38	07/23/19 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*
Y Carrier	*89.7*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	17.4		0.847	1.48	5.00	0.365	pCi/L		08/07/19 08:30	1

Client Sample ID: FB-02

Date Collected: 05/30/19 09:45
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0522	U	0.0660	0.0662	1.00	0.110	pCi/L	06/14/19 10:26	08/06/19 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*06/14/19 10:26*	*08/06/19 10:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00836	U	0.227	0.227	1.00	0.406	pCi/L	06/14/19 14:38	07/23/19 09:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:57*	*1*
Y Carrier	*89.7*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0438	U	0.236	0.236	5.00	0.406	pCi/L		08/07/19 08:30	1

Client Sample ID: EB-02

Date Collected: 05/30/19 11:15
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00626	U	0.0493	0.0493	1.00	0.102	pCi/L	06/14/19 10:26	08/06/19 12:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/14/19 10:26*	*08/06/19 12:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0730	U	0.186	0.186	1.00	0.348	pCi/L	06/14/19 14:38	07/23/19 09:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:58*	*1*
Y Carrier	*89.7*		*40 - 110*	*06/14/19 14:38*	*07/23/19 09:58*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0792	U	0.192	0.192	5.00	0.348	pCi/L		08/07/19 08:30	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Qualifiers

Rad

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Client Sample ID: MW-06
Date Collected: 05/29/19 08:29
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431495	06/12/19 14:18	ORM	TAL SL
Total/NA	Analysis	9315		1	439521	08/14/19 19:28	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431600	06/13/19 11:01	ORM	TAL SL
Total/NA	Analysis	9320		1	435773	07/22/19 12:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439602	08/15/19 08:21	SMP	TAL SL

Client Sample ID: MW-07
Date Collected: 05/29/19 09:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431495	06/12/19 14:18	ORM	TAL SL
Total/NA	Analysis	9315		1	439521	08/14/19 19:28	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431600	06/13/19 11:01	ORM	TAL SL
Total/NA	Analysis	9320		1	435773	07/22/19 12:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439602	08/15/19 08:21	SMP	TAL SL

Client Sample ID: MW-08
Date Collected: 05/30/19 11:07
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	437999	08/05/19 22:36	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: MW-09
Date Collected: 05/30/19 08:47
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438290	08/06/19 10:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Client Sample ID: MW-10
Date Collected: 05/30/19 06:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438290	08/06/19 10:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: MW-11
Date Collected: 05/29/19 14:43
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438290	08/06/19 10:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: MW-13
Date Collected: 05/29/19 11:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438290	08/06/19 10:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: MW-14
Date Collected: 05/30/19 09:48
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438289	08/06/19 10:37	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Client Sample ID: DUP-02
Date Collected: 05/29/19 08:44
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438262	08/06/19 10:38	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: EB-01
Date Collected: 05/29/19 13:25
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438262	08/06/19 10:38	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: FB-01
Date Collected: 05/29/19 12:00
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438431	08/06/19 10:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: DUP-03
Date Collected: 05/30/19 05:54
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170870-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438431	08/06/19 10:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436108	07/23/19 09:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Client Sample ID: FB-02

Lab Sample ID: 400-170870-13

Date Collected: 05/30/19 09:45
Date Received: 05/30/19 14:37

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438431	08/06/19 10:42	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436112	07/23/19 09:57	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Client Sample ID: EB-02

Lab Sample ID: 400-170870-14

Date Collected: 05/30/19 11:15
Date Received: 05/30/19 14:37

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431743	06/14/19 10:26	KAW	TAL SL
Total/NA	Analysis	9315		1	438290	08/06/19 12:37	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431783	06/14/19 14:38	KAW	TAL SL
Total/NA	Analysis	9320		1	436112	07/23/19 09:58	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	438566	08/07/19 08:30	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 431495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	PrecSep-21	
400-170870-2	MW-07	Total/NA	Water	PrecSep-21	
MB 160-431495/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431495/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-170707-B-18-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 431600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-1	MW-06	Total/NA	Water	PrecSep_0	
400-170870-2	MW-07	Total/NA	Water	PrecSep_0	
MB 160-431600/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431600/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-170707-B-18-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 431743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-3	MW-08	Total/NA	Water	PrecSep-21	
400-170870-4	MW-09	Total/NA	Water	PrecSep-21	
400-170870-5	MW-10	Total/NA	Water	PrecSep-21	
400-170870-6	MW-11	Total/NA	Water	PrecSep-21	
400-170870-7	MW-13	Total/NA	Water	PrecSep-21	
400-170870-8	MW-14	Total/NA	Water	PrecSep-21	
400-170870-9	DUP-02	Total/NA	Water	PrecSep-21	
400-170870-10	EB-01	Total/NA	Water	PrecSep-21	
400-170870-11	FB-01	Total/NA	Water	PrecSep-21	
400-170870-12	DUP-03	Total/NA	Water	PrecSep-21	
400-170870-13	FB-02	Total/NA	Water	PrecSep-21	
400-170870-14	EB-02	Total/NA	Water	PrecSep-21	
MB 160-431743/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431743/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
180-90460-A-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 431783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170870-3	MW-08	Total/NA	Water	PrecSep_0	
400-170870-4	MW-09	Total/NA	Water	PrecSep_0	
400-170870-5	MW-10	Total/NA	Water	PrecSep_0	
400-170870-6	MW-11	Total/NA	Water	PrecSep_0	
400-170870-7	MW-13	Total/NA	Water	PrecSep_0	
400-170870-8	MW-14	Total/NA	Water	PrecSep_0	
400-170870-9	DUP-02	Total/NA	Water	PrecSep_0	
400-170870-10	EB-01	Total/NA	Water	PrecSep_0	
400-170870-11	FB-01	Total/NA	Water	PrecSep_0	
400-170870-12	DUP-03	Total/NA	Water	PrecSep_0	
400-170870-13	FB-02	Total/NA	Water	PrecSep_0	
400-170870-14	EB-02	Total/NA	Water	PrecSep_0	
MB 160-431783/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431783/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-90460-A-1-C DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431495/23-A
Matrix: Water
Analysis Batch: 439521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431495

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.009378	U	0.0712	0.0713	1.00	0.137	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Lab Sample ID: LCS 160-431495/1-A
Matrix: Water
Analysis Batch: 439521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431495

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.356		0.966	1.00	0.0860	pCi/L	82	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.9*		*40 - 110*

Lab Sample ID: 400-170707-B-18-A DU
Matrix: Water
Analysis Batch: 439521

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431495

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.114			0.06929	U	0.0670	1.00	0.104	pCi/L			0.32	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*

Lab Sample ID: MB 160-431743/23-A
Matrix: Water
Analysis Batch: 438262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431743

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05652	U	0.0417	0.0420	1.00	0.112	pCi/L	06/14/19 10:26	08/06/19 12:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*40 - 110*	*06/14/19 10:26*	*08/06/19 12:38*	*1*

Lab Sample ID: LCS 160-431743/1-A
Matrix: Water
Analysis Batch: 438000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431743

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.86		1.12	1.00	0.112	pCi/L	96	75 - 125		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-431743/1-A
Matrix: Water
Analysis Batch: 438000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431743

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.8		40 - 110

Lab Sample ID: 180-90460-A-1-A DU
Matrix: Water
Analysis Batch: 437999

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431743

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.0736	U		0.3151		0.160	1.00	0.190	pCi/L			0.83	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.8		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431600/23-A
Matrix: Water
Analysis Batch: 435773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431600

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2901	U	0.374	0.375	1.00	0.622	pCi/L	06/13/19 11:01	07/22/19 12:54	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	76.5		40 - 110	06/13/19 11:01	07/22/19 12:54	1
Y Carrier	68.0		40 - 110	06/13/19 11:01	07/22/19 12:54	1

Lab Sample ID: LCS 160-431600/1-A
Matrix: Water
Analysis Batch: 435771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431600

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.00	10.88		1.33	1.00	0.594	pCi/L	121	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.9		40 - 110
Y Carrier	59.8		40 - 110

Lab Sample ID: 400-170707-B-18-B DU
Matrix: Water
Analysis Batch: 435771

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431600

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.126	U		0.1454	U	0.295	1.00	0.505	pCi/L			0.03	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-170707-B-18-B DU
Matrix: Water
Analysis Batch: 435771

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431600

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.8		40 - 110
Y Carrier	71.4		40 - 110

Lab Sample ID: MB 160-431783/23-A
Matrix: Water
Analysis Batch: 436112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431783

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1145	U	0.199	0.200	1.00	0.338	pCi/L	06/14/19 14:38	07/23/19 09:59	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110	06/14/19 14:38	07/23/19 09:59	1
Y Carrier	92.0		40 - 110	06/14/19 14:38	07/23/19 09:59	1

Lab Sample ID: LCS 160-431783/1-A
Matrix: Water
Analysis Batch: 436108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431783

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.00	8.661		1.04	1.00	0.397	pCi/L	96	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.8		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: 180-90460-A-1-C DU
Matrix: Water
Analysis Batch: 436108

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431783

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.408	U		-1.518	U G F	0.623	1.00	1.23	pCi/L			1.81	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.8		40 - 110
Y Carrier	85.6		40 - 110

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-170707-A-18 DU
Matrix: Water
Analysis Batch: 439602

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	0.240	U		0.2147	U	0.303	5.00	0.505	pCi/L			0.04	

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Sutles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1-2
Company: Gulf Power Company				Job #: 170870

Address: BIN 731 One Energy Place	Due Date Requested:	Analysis Requ
City: Pensacola	TAT Requested (days):	
State, Zip: FL, 32520		
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required	
Email: richard.markey@nexteraenergy.com	WO #:	
Project Name: CCR Smith Plant	Project #: 40006609	
Site: Downgradient	SSOW#:	

400-170870 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-06	5-29-19	0829	G	Water			X	X	X	X		
MW-07	5-29-19	0944	G	Water			X	X	X	X		
MW-08	5/30/19	1107	G	Water			X	X	X	X		
MW-09	5/30/19	0847	G	Water			X	X	X	X		
MW-10	5/30/19	0654	G	Water			X	X	X	X		
MW-11	5-29-19	1443	G	Water			X	X	X	X		
MW-13	5-29-19	1100	G	Water			X	X	X	X		
MW-14	5/30/19	0948	G	Water			X	X	X	X		
DUP-02	5-29-19	0844	G	W			X	X	X			
EB-01	5-29-19	1325	G	W			X	X	X			
FB-01	5-29-19	1200	G	W			X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5/30/19 1437	[illegible]	Kathy R Avery	5-30-19 1437	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1, 2.8, 1.9°C IR7

8/21/2019

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 2-2
Company: Gulf Power Company				Job #: 170870

Address: BIN 731 One Energy Place	Due Date Requested:
City: Pensacola	TAT Requested (days):
State, Zip: FL, 32520	
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required
Email: richard.markey@nexteraenergy.com	WO #:
Project Name: CCR Smith Plant	Project #: 40006609
Site: Downgradient	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
~~MW-06~~ Dup-03	5/30/19	0554	G	Water			X	X	X	X		
~~MW-07~~ FB-02	5/30/19	0945	G	Water			X	X	X	X		
~~MW-08~~ EB-02	5/30/19	1115	G	Water			X	X	X	X		
~~MW-09~~				Water								
~~MW-10~~				Water								
~~MW-11~~				Water								
~~MW-13~~				Water								
~~MW-14~~				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 5/30/19 1437	Company KOII	Received by:	Date/Time: 5-30-19 1437	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

8/21/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170870-2
SDG Number: Downgradient

Login Number: 170870
List Number: 1
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1, 2.8, 1.9°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170870-2
SDG Number: Downgradient

Login Number: 170870
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/04/19 04:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-20
Florida	NELAP	4	E81010	06-30-20
Florida	NELAP		E81010	06-30-20
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Illinois	NELAP		004586	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-20
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
New Jersey	NELAP		FL006	07-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State		C915	05-15-20
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19 *

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170870-2
SDG: Downgradient

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2305	04-06-22
ANAB	DoD		L2305	04-06-22
ANAB	DOE		L2305.01	04-06-22
Arizona	State		AZ0813	12-08-19
Arizona	State Program	9	AZ0813	12-08-19
California	State		2886	06-30-20
California	State Program	9	2886	06-30-20
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-20
Florida	NELAP		E87689	06-30-20
Hawaii	State Program	9	NA	06-30-20
Illinois	NELAP	5	200023	11-30-19
Illinois	NELAP		004553	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State		KY90125	12-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-20
Louisiana (DW)	NELAP	6	LA011	12-31-19
Louisiana (DW)	State		LA011	12-31-19
Maryland	State		310	09-30-20
Maryland	State Program	3	310	09-30-20
Michigan	State Program	5	9005	06-30-20
Missouri	State		780	06-30-22
Missouri	State Program	7	780	06-30-20
Nevada	State		MO000542020-1	07-31-20
New Jersey	NELAP	2	MO002	06-30-20
New Jersey	NELAP		MO002	06-30-20
New York	NELAP	2	11616	03-31-20
New York	NELAP		11616	04-01-20
North Dakota	State		R-207	06-30-20
North Dakota	State Program	8	R207	06-30-20
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State		9997	08-31-19
Oklahoma	State Program	6	9997	08-31-19 *
Pennsylvania	NELAP	3	68-00540	02-28-20
Pennsylvania	NELAP		68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-20
Texas	NELAP	6	T104704193-19-14	07-31-20
Texas	NELAP		T104704193-19-13	07-31-20
US Fish & Wildlife	Federal		058448	07-31-20
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542019-11	07-31-20
Virginia	NELAP	3	460230	06-14-20
Virginia	NELAP		10310	06-14-20
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19 *

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

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170869-1
Laboratory Sample Delivery Group: Delineation Wells
Client Project/Site: CCR Smith Plant
Revision: 1

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Authorized for release by:
9/20/2019 6:38:12 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-170869-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170869-1

Metals
Method(s) 6020: Method required MS/MSD and/or duplicate QC were prepared and analyzed at required batch frequency for preparation batch 400-447396 and analytical batch 400-447783 however they did not pass criteria, and were not re-analyzed due to analyst oversight.

General Chemistry
Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-443181 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: Due to the concentration of chloride in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-170869-A-1 MS) and (400-170869-A-1 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444098 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWI-12A (400-170869-1), PZ-11D (400-170869-2), PZ-14 (400-170869-3), PZ-13D (400-170869-4), (400-170869-A-1 MS) and (400-170869-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-170943-A-5 MS) and (400-170943-A-5 MSD)

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444698 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWI-12A (400-170869-1), PZ-11D (400-170869-2), PZ-14 (400-170869-3), PZ-13D (400-170869-4), (400-170943-A-5), (400-170943-A-5 MS) and (400-170943-A-5 MSD). Elevated reporting limits (RLs) are provided.

Report revised to remove redundant MB/LCS from the report.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: MWI-12A — Lab Sample ID: 400-170869-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0041		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.14		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.7		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	49		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0016	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Lithium	0.0066		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.016		0.015	0.0020	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	770		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	310		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	100		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.06				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-11D — Lab Sample ID: 400-170869-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.098		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.61		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	240		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.027		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4200		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1800		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	160		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.75				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-14 — Lab Sample ID: 400-170869-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0050		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.14		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	13		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium	630		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	8500		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3700		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.26		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	870		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.09				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: PZ-13D

Lab Sample ID: 400-170869-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00057	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.052		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	15		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium	810		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.018		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10000		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	4200		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1100		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	4.62				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170869-1	MWI-12A	Water	05/29/19 13:11	05/30/19 14:37	
400-170869-2	PZ-11D	Water	05/29/19 16:38	05/30/19 14:37	
400-170869-3	PZ-14	Water	05/29/19 13:14	05/30/19 14:37	
400-170869-4	PZ-13D	Water	05/29/19 12:11	05/30/19 14:37	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: MWI-12A

Date Collected: 05/29/19 13:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0041		0.0013	0.00046	mg/L		07/10/19 12:23	08/15/19 19:15	5
Barium	0.14		0.0025	0.00049	mg/L		07/10/19 12:23	08/15/19 19:15	5
Boron	1.7		0.50	0.21	mg/L		07/10/19 12:23	08/28/19 20:37	50
Calcium	49		0.25	0.13	mg/L		07/10/19 12:23	08/26/19 21:00	5
Chromium	0.0016	I	0.0025	0.0011	mg/L		07/10/19 12:23	08/26/19 21:00	5
Lead	0.00035	U J3	0.0013	0.00035	mg/L		07/10/19 12:23	08/15/19 19:15	5
Lithium	0.0066		0.0050	0.0011	mg/L		07/10/19 12:23	08/15/19 19:15	5
Molybdenum	0.016		0.015	0.0020	mg/L		07/10/19 12:23	08/15/19 19:15	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	770		10	6.8	mg/L			05/31/19 09:35	1
Chloride	310		40	28	mg/L			06/11/19 17:53	20
Fluoride	0.070	I	0.10	0.032	mg/L			05/31/19 13:43	1
Sulfate	100		25	7.0	mg/L			06/17/19 10:25	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.06				SU			05/29/19 13:11	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: PZ-11D

Date Collected: 05/29/19 16:38
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/10/19 12:23	08/15/19 19:21	5
Barium	**0.098**		0.0025	0.00049	mg/L		07/10/19 12:23	08/15/19 19:21	5
Boron	**0.61**		0.050	0.021	mg/L		07/10/19 12:23	08/28/19 20:43	5
Calcium	**240**		2.5	1.3	mg/L		07/10/19 12:23	08/26/19 21:17	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/10/19 12:23	08/15/19 19:21	5
Lead	0.00035	U J3	0.0013	0.00035	mg/L		07/10/19 12:23	08/15/19 19:21	5
Lithium	**0.027**		0.0050	0.0011	mg/L		07/10/19 12:23	08/15/19 19:21	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/10/19 12:23	08/15/19 19:21	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4200**		25	17	mg/L			05/31/19 09:35	1
Chloride	**1800**		200	140	mg/L			06/11/19 17:55	100
Fluoride	**0.19**		0.10	0.032	mg/L			05/31/19 13:47	1
Sulfate	**160**		100	28	mg/L			06/17/19 10:28	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.75**				SU			05/29/19 16:38	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: PZ-14

Date Collected: 05/29/19 13:14
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0050**		0.0013	0.00046	mg/L		07/10/19 12:23	08/15/19 19:26	5
Barium	**0.14**		0.0025	0.00049	mg/L		07/10/19 12:23	08/15/19 19:26	5
Boron	**13**		1.0	0.42	mg/L		07/10/19 12:23	09/09/19 22:37	100
Calcium	**630**		2.5	1.3	mg/L		07/10/19 12:23	08/26/19 21:28	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/10/19 12:23	08/15/19 19:26	5
Lead	0.00035	U J3	0.0013	0.00035	mg/L		07/10/19 12:23	08/15/19 19:26	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/10/19 12:23	08/26/19 21:22	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/10/19 12:23	08/15/19 19:26	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8500**		50	34	mg/L			05/31/19 09:35	1
Chloride	**3700**		200	140	mg/L			06/11/19 17:55	100
Fluoride	**0.26**		0.10	0.032	mg/L			05/31/19 13:50	1
Sulfate	**870**		150	42	mg/L			06/17/19 10:28	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.09**				SU			05/29/19 13:14	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: PZ-13D

Date Collected: 05/29/19 12:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00057**	**I**	0.0013	0.00046	mg/L		07/10/19 12:23	08/15/19 19:32	5
Barium	**0.052**		0.0025	0.00049	mg/L		07/10/19 12:23	08/15/19 19:32	5
Boron	**15**		1.0	0.42	mg/L		07/10/19 12:23	09/09/19 22:43	100
Calcium	**810**		2.5	1.3	mg/L		07/10/19 12:23	08/26/19 21:39	50
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/10/19 12:23	08/15/19 19:32	5
Lead	0.00035	U J3	0.0013	0.00035	mg/L		07/10/19 12:23	08/15/19 19:32	5
Lithium	**0.018**		0.0050	0.0011	mg/L		07/10/19 12:23	08/26/19 21:33	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/10/19 12:23	08/15/19 19:32	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10000**		130	85	mg/L			05/31/19 09:35	1
Chloride	**4200**		200	140	mg/L			06/17/19 14:06	100
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			06/04/19 12:17	1
Sulfate	**1100**		250	70	mg/L			06/17/19 10:44	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.62**				SU			05/29/19 12:11	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: MWI-12A
Date Collected: 05/29/19 13:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	452694	08/15/19 19:15	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 21:00	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454608	08/28/19 20:37	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	444098	06/11/19 17:53	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	444698	06/17/19 10:25	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 13:11	MCS	TAL PEN

Client Sample ID: PZ-11D
Date Collected: 05/29/19 16:38
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	452694	08/15/19 19:21	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454169	08/26/19 21:17	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 20:43	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:47	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	444698	06/17/19 10:28	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 16:38	MCS	TAL PEN

Client Sample ID: PZ-14
Date Collected: 05/29/19 13:14
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	452694	08/15/19 19:26	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 21:22	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454169	08/26/19 21:28	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		100	456177	09/09/19 22:37	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444098	06/11/19 17:55	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Client Sample ID: PZ-14

Lab Sample ID: 400-170869-3

Date Collected: 05/29/19 13:14
Date Received: 05/30/19 14:37

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	442822	05/31/19 13:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	444698	06/17/19 10:28	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 13:14	MCS	TAL PEN

Client Sample ID: PZ-13D

Lab Sample ID: 400-170869-4

Date Collected: 05/29/19 12:11
Date Received: 05/30/19 14:37

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	452694	08/15/19 19:32	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 21:33	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454169	08/26/19 21:39	AW	TAL PEN
Total Recoverable	Prep	3005A			447396	07/10/19 12:23	AW	TAL PEN
Total Recoverable	Analysis	6020		100	456177	09/09/19 22:43	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	442778	05/31/19 09:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	444747	06/17/19 14:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 12:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	444698	06/17/19 10:44	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445775	05/29/19 12:11	MCS	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 447396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total Recoverable	Water	3005A	
400-170869-2	PZ-11D	Total Recoverable	Water	3005A	
400-170869-3	PZ-14	Total Recoverable	Water	3005A	
400-170869-4	PZ-13D	Total Recoverable	Water	3005A	
MB 400-447396/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-447396/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-171490-D-9-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	

Analysis Batch: 447783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171490-D-9-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	447396

Analysis Batch: 452694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total Recoverable	Water	6020	447396
400-170869-2	PZ-11D	Total Recoverable	Water	6020	447396
400-170869-3	PZ-14	Total Recoverable	Water	6020	447396
400-170869-4	PZ-13D	Total Recoverable	Water	6020	447396

Analysis Batch: 454169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total Recoverable	Water	6020	447396
400-170869-2	PZ-11D	Total Recoverable	Water	6020	447396
400-170869-3	PZ-14	Total Recoverable	Water	6020	447396
400-170869-3	PZ-14	Total Recoverable	Water	6020	447396
400-170869-4	PZ-13D	Total Recoverable	Water	6020	447396
400-170869-4	PZ-13D	Total Recoverable	Water	6020	447396
MB 400-447396/1-A	Method Blank	Total Recoverable	Water	6020	447396
LCS 400-447396/2-A	Lab Control Sample	Total Recoverable	Water	6020	447396

Analysis Batch: 454608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total Recoverable	Water	6020	447396
400-170869-2	PZ-11D	Total Recoverable	Water	6020	447396

Analysis Batch: 456177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-3	PZ-14	Total Recoverable	Water	6020	447396
400-170869-4	PZ-13D	Total Recoverable	Water	6020	447396

General Chemistry

Analysis Batch: 442778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	SM 2540C	
400-170869-2	PZ-11D	Total/NA	Water	SM 2540C	
400-170869-3	PZ-14	Total/NA	Water	SM 2540C	
400-170869-4	PZ-13D	Total/NA	Water	SM 2540C	
MB 400-442778/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-442778/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-170869-1 DU	MWI-12A	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 442778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-2 DU	PZ-11D	Total/NA	Water	SM 2540C	

Analysis Batch: 442822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	SM 4500 F C	
400-170869-2	PZ-11D	Total/NA	Water	SM 4500 F C	
400-170869-3	PZ-14	Total/NA	Water	SM 4500 F C	
MB 400-442822/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-442822/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-170870-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-170870-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-170870-A-9 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 443181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-4	PZ-13D	Total/NA	Water	SM 4500 F C	
MB 400-443181/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-443181/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-170869-4 MS	PZ-13D	Total/NA	Water	SM 4500 F C	
400-170869-4 MSD	PZ-13D	Total/NA	Water	SM 4500 F C	
400-170945-A-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 444098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	SM 4500 Cl- E	
400-170869-2	PZ-11D	Total/NA	Water	SM 4500 Cl- E	
400-170869-3	PZ-14	Total/NA	Water	SM 4500 Cl- E	
MB 400-444098/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444098/50	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444098/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-170869-1 MS	MWI-12A	Total/NA	Water	SM 4500 Cl- E	
400-170869-1 MSD	MWI-12A	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 444698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	SM 4500 SO4 E	
400-170869-2	PZ-11D	Total/NA	Water	SM 4500 SO4 E	
400-170869-3	PZ-14	Total/NA	Water	SM 4500 SO4 E	
400-170869-4	PZ-13D	Total/NA	Water	SM 4500 SO4 E	
MB 400-444698/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444698/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444698/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-170943-A-5 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-170943-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-4	PZ-13D	Total/NA	Water	SM 4500 Cl- E	
MB 400-444747/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444747/6	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444747/50	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 444747 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171529-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-171529-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 445775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	Field Sampling	
400-170869-2	PZ-11D	Total/NA	Water	Field Sampling	
400-170869-3	PZ-14	Total/NA	Water	Field Sampling	
400-170869-4	PZ-13D	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-447396/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447396

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/10/19 12:23	08/26/19 20:38	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/10/19 12:23	08/26/19 20:38	1
Boron	0.0042	U	0.010	0.0042	mg/L		07/10/19 12:23	08/26/19 20:38	1
Calcium	0.025	U	0.050	0.025	mg/L		07/10/19 12:23	08/26/19 20:38	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/10/19 12:23	08/26/19 20:38	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/10/19 12:23	08/26/19 20:38	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/10/19 12:23	08/26/19 20:38	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/10/19 12:23	08/26/19 20:38	1

Lab Sample ID: LCS 400-447396/2-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0491		mg/L		98	80 - 120
Barium	0.0500	0.0464		mg/L		93	80 - 120
Boron	0.100	0.0980		mg/L		98	80 - 120
Calcium	1.00	1.02		mg/L		102	80 - 120
Chromium	0.0500	0.0505		mg/L		101	80 - 120
Lead	0.0500	0.0500		mg/L		100	80 - 120
Lithium	0.0500	0.0514		mg/L		103	80 - 120
Molybdenum	0.0500	0.0466		mg/L		93	80 - 120

Lab Sample ID: 400-171490-D-9-B MS ^5
Matrix: Water
Analysis Batch: 447783

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 447396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.0011	U	0.0500	0.0392		mg/L		78	75 - 125

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-442778/1
Matrix: Water
Analysis Batch: 442778

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			05/31/19 09:35	1

Lab Sample ID: LCS 400-442778/2
Matrix: Water
Analysis Batch: 442778

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	288		mg/L		98	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-170869-1 DU
Matrix: Water
Analysis Batch: 442778

Client Sample ID: MWI-12A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	770			796		mg/L				3	5

Lab Sample ID: 400-170869-2 DU
Matrix: Water
Analysis Batch: 442778

Client Sample ID: PZ-11D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	4200			4130		mg/L				0.7	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-444098/5
Matrix: Water
Analysis Batch: 444098

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/11/19 17:16	1

Lab Sample ID: LCS 400-444098/50
Matrix: Water
Analysis Batch: 444098

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			30.0	32.8		mg/L		109	90 - 110		

Lab Sample ID: MRL 400-444098/3
Matrix: Water
Analysis Batch: 444098

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.26	I	mg/L		63	50 - 150		

Lab Sample ID: 400-170869-1 MS
Matrix: Water
Analysis Batch: 444098

Client Sample ID: MWI-12A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	310		10.0	312	J3	mg/L		-26	73 - 120		

Lab Sample ID: 400-170869-1 MSD
Matrix: Water
Analysis Batch: 444098

Client Sample ID: MWI-12A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	310		10.0	317	J3	mg/L		26	73 - 120	2	8

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MB 400-444747/5
Matrix: Water
Analysis Batch: 444747

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/17/19 13:22	1

Lab Sample ID: LCS 400-444747/6
Matrix: Water
Analysis Batch: 444747

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.3		mg/L		104	90 - 110

Lab Sample ID: MRL 400-444747/50
Matrix: Water
Analysis Batch: 444747

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.11	I	mg/L		56	50 - 150

Lab Sample ID: 400-171529-A-1 MS
Matrix: Water
Analysis Batch: 444747

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	27.5		mg/L		100	73 - 120

Lab Sample ID: 400-171529-A-1 MSD
Matrix: Water
Analysis Batch: 444747

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17		10.0	27.2		mg/L		98	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-442822/3
Matrix: Water
Analysis Batch: 442822

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/19 12:15	1

Lab Sample ID: LCS 400-442822/4
Matrix: Water
Analysis Batch: 442822

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.61		mg/L		90	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-170870-A-1 MS
Matrix: Water
Analysis Batch: 442822

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.050	I	1.00	0.930		mg/L		88	75 - 125

Lab Sample ID: 400-170870-A-1 MSD
Matrix: Water
Analysis Batch: 442822

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	I	1.00	0.940		mg/L		89	75 - 125	1	4

Lab Sample ID: 400-170870-A-9 DU
Matrix: Water
Analysis Batch: 442822

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Lab Sample ID: MB 400-443181/3
Matrix: Water
Analysis Batch: 443181

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 11:57	1

Lab Sample ID: LCS 400-443181/4
Matrix: Water
Analysis Batch: 443181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.75		mg/L		94	90 - 110

Lab Sample ID: 400-170869-4 MS
Matrix: Water
Analysis Batch: 443181

Client Sample ID: PZ-13D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	I	1.00	0.530	J3	mg/L		49	75 - 125

Lab Sample ID: 400-170869-4 MSD
Matrix: Water
Analysis Batch: 443181

Client Sample ID: PZ-13D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	I	1.00	0.540	J3	mg/L		50	75 - 125	2	4

Lab Sample ID: 400-170945-A-1 DU
Matrix: Water
Analysis Batch: 443181

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-444698/6
Matrix: Water
Analysis Batch: 444698

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 09:54	1

Lab Sample ID: LCS 400-444698/7
Matrix: Water
Analysis Batch: 444698

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	15.5		mg/L		103	90 - 110		

Lab Sample ID: MRL 400-444698/3
Matrix: Water
Analysis Batch: 444698

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.54	I	mg/L		91	50 - 150		

Lab Sample ID: 400-170943-A-5 MS
Matrix: Water
Analysis Batch: 444698

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	210		10.0	213	J3	mg/L		20	77 - 128		

Lab Sample ID: 400-170943-A-5 MSD
Matrix: Water
Analysis Batch: 444698

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	210		10.0	216	J3	mg/L		47	77 - 128	1	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-170869 COC

Client Information	Sampler: Bre#Sparles	Lab PM: Whitmire, Cheyenne R	Ca	COC No:
Client Contact: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1-1
Company: Gulf Power Company				Job #: 170869
Address: BIN 731 One Energy Place	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Pensacola	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: FL, 32520				Other:
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Delineation Wells	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MWI-12A	5-29-19	1311	G	Water			X	X	X	X		
PZ-11D	5/29/19	1638	G	Water			X	X	X	X		
PZ-14	5-29-19	1314	G	Water			X	X	X	X		
PZ-13D	5-29-19	1211	G	Water			X	X	X	X		
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/30/19 1437	RDT	Kathy R Owen	5-30-19 1437	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1°C TR7

9/20/2019 (Rev. 1)

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170869-1
SDG Number: Delineation Wells

Login Number: 170869
List Number: 1
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
Arkansas DEQ	State Program	88-0689	09-01-20
California	State	2510	07-01-20
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	93030	12-30-19
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State	233	09-30-20
Maryland	State Program	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Oklahoma	State Program	9810	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-1
SDG: Delineation Wells

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	09-30-19

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170869-2
Laboratory Sample Delivery Group: Delineation Wells
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/21/2019 5:55:28 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-170869-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170869-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-431495. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MWI-12A (400-170869-1), PZ-11D (400-170869-2), PZ-14 (400-170869-3), PZ-13D (400-170869-4), (LCS 160-431495/1-A), (MB 160-431495/23-A), (400-170707-A-18-A) and (400-170707-B-18-A DU)

Method(s) 9320: Ra-228 Prep Batch 160-431600. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MWI-12A (400-170869-1), PZ-11D (400-170869-2), PZ-14 (400-170869-3), PZ-13D (400-170869-4), (LCS 160-431600/1-A), (MB 160-431600/23-A), (400-170707-A-18-B) and (400-170707-B-18-B DU)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170869-1	MWI-12A	Water	05/29/19 13:11	05/30/19 14:37	
400-170869-2	PZ-11D	Water	05/29/19 16:38	05/30/19 14:37	
400-170869-3	PZ-14	Water	05/29/19 13:14	05/30/19 14:37	
400-170869-4	PZ-13D	Water	05/29/19 12:11	05/30/19 14:37	

Client Sample ID: MWI-12A

Date Collected: 05/29/19 13:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	26.9		0.856	2.57	1.00	0.0923	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.91		0.566	0.670	1.00	0.505	pCi/L	06/13/19 11:01	07/22/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*
Y Carrier	*71.4*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	30.8		1.03	2.66	5.00	0.505	pCi/L		08/15/19 08:21	1

Client Sample ID: PZ-11D

Date Collected: 05/29/19 16:38
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.40		0.399	0.629	1.00	0.0973	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.725		0.373	0.379	1.00	0.544	pCi/L	06/13/19 11:01	07/22/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*
Y Carrier	*64.3*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.12		0.546	0.734	5.00	0.544	pCi/L		08/15/19 08:21	1

Client Sample ID: PZ-14

Date Collected: 05/29/19 13:14
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	10.1		0.511	1.04	1.00	0.104	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	16.3		1.05	1.83	1.00	0.608	pCi/L	06/13/19 11:01	07/22/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*
Y Carrier	*71.4*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	26.4		1.17	2.10	5.00	0.608	pCi/L		08/15/19 08:21	1

Client Sample ID: PZ-13D

Date Collected: 05/29/19 12:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	4.41		0.339	0.522	1.00	0.0957	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	22.9		1.26	2.46	1.00	0.599	pCi/L	06/13/19 11:01	07/22/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*
Y Carrier	*59.1*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	27.3		1.30	2.51	5.00	0.599	pCi/L		08/15/19 08:21	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Client Sample ID: MWI-12A
Date Collected: 05/29/19 13:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431495	06/12/19 14:18	ORM	TAL SL
Total/NA	Analysis	9315		1	439521	08/14/19 19:28	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431600	06/13/19 11:01	ORM	TAL SL
Total/NA	Analysis	9320		1	435773	07/22/19 12:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439602	08/15/19 08:21	SMP	TAL SL

Client Sample ID: PZ-11D
Date Collected: 05/29/19 16:38
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431495	06/12/19 14:18	ORM	TAL SL
Total/NA	Analysis	9315		1	439521	08/14/19 19:28	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431600	06/13/19 11:01	ORM	TAL SL
Total/NA	Analysis	9320		1	435773	07/22/19 12:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439602	08/15/19 08:21	SMP	TAL SL

Client Sample ID: PZ-14
Date Collected: 05/29/19 13:14
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431495	06/12/19 14:18	ORM	TAL SL
Total/NA	Analysis	9315		1	439521	08/14/19 19:28	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431600	06/13/19 11:01	ORM	TAL SL
Total/NA	Analysis	9320		1	435773	07/22/19 12:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439602	08/15/19 08:21	SMP	TAL SL

Client Sample ID: PZ-13D
Date Collected: 05/29/19 12:11
Date Received: 05/30/19 14:37

Lab Sample ID: 400-170869-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431495	06/12/19 14:18	ORM	TAL SL
Total/NA	Analysis	9315		1	439521	08/14/19 19:28	KLS	TAL SL
Total/NA	Prep	PrecSep_0			431600	06/13/19 11:01	ORM	TAL SL
Total/NA	Analysis	9320		1	435773	07/22/19 12:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	439602	08/15/19 08:21	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Rad

Prep Batch: 431495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	PrecSep-21	
400-170869-2	PZ-11D	Total/NA	Water	PrecSep-21	
400-170869-3	PZ-14	Total/NA	Water	PrecSep-21	
400-170869-4	PZ-13D	Total/NA	Water	PrecSep-21	
MB 160-431495/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431495/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-170707-B-18-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 431600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170869-1	MWI-12A	Total/NA	Water	PrecSep_0	
400-170869-2	PZ-11D	Total/NA	Water	PrecSep_0	
400-170869-3	PZ-14	Total/NA	Water	PrecSep_0	
400-170869-4	PZ-13D	Total/NA	Water	PrecSep_0	
MB 160-431600/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431600/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-170707-B-18-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431495/23-A
Matrix: Water
Analysis Batch: 439521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431495

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.009378	U	0.0712	0.0713	1.00	0.137	pCi/L	06/12/19 14:18	08/14/19 19:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*40 - 110*	*06/12/19 14:18*	*08/14/19 19:28*	*1*

Lab Sample ID: LCS 160-431495/1-A
Matrix: Water
Analysis Batch: 439521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431495

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.356		0.966	1.00	0.0860	pCi/L	82	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.9*		*40 - 110*

Lab Sample ID: 400-170707-B-18-A DU
Matrix: Water
Analysis Batch: 439521

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431495

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.114			0.06929	U	0.0670	1.00	0.104	pCi/L			0.32	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431600/23-A
Matrix: Water
Analysis Batch: 435773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431600

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2901	U	0.374	0.375	1.00	0.622	pCi/L	06/13/19 11:01	07/22/19 12:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:54*	*1*
Y Carrier	*68.0*		*40 - 110*	*06/13/19 11:01*	*07/22/19 12:54*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-431600/1-A
Matrix: Water
Analysis Batch: 435771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431600

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.00	10.88		1.33	1.00	0.594	pCi/L	121	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.9*		*40 - 110*
Y Carrier	*59.8*		*40 - 110*

Lab Sample ID: 400-170707-B-18-B DU
Matrix: Water
Analysis Batch: 435771

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431600

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.126	U		0.1454	U	0.295	1.00	0.505	pCi/L			0.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*
Y Carrier	*71.4*		*40 - 110*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-170707-A-18 DU
Matrix: Water
Analysis Batch: 439602

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	0.240	U		0.2147	U	0.303	5.00	0.505	pCi/L			0.04	

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-170869 COC

Client Information	Sampler: Bre # Sparles	Lab PM: Whitmire, Cheyenne R	Ca	COC No:
Client Contact: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1-1
Company: Gulf Power Company				Job #: 170869
Address: BIN 731 One Energy Place	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Pensacola	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			Other:
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Delineation Wells	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MWI-12A	5-29-19	1311	G	Water			X	X	X	X		
PZ-11D	5/29/19	1638	G	Water			X	X	X	X		
PZ-14	5-29-19	1314	G	Water			X	X	X	X		
PZ-13D	5-29-19	1211	G	Water			X	X	X	X		
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/30/19 1437	RDT	Kathy R Owen	5-30-19 1437	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1°C TR7

8/21/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170869-2
SDG Number: Delineation Wells

Login Number: 170869
List Number: 1
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170869-2
SDG Number: Delineation Wells

Login Number: 170869
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/04/19 04:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-20
Florida	NELAP	4	E81010	06-30-20
Florida	NELAP		E81010	06-30-20
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Illinois	NELAP		004586	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-20
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
New Jersey	NELAP		FL006	07-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State		C915	05-15-20
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19 *

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-170869-2
SDG: Delineation Wells

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2305	04-06-22
ANAB	DoD		L2305	04-06-22
ANAB	DOE		L2305.01	04-06-22
Arizona	State		AZ0813	12-08-19
Arizona	State Program	9	AZ0813	12-08-19
California	State		2886	06-30-20
California	State Program	9	2886	06-30-20
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-20
Florida	NELAP		E87689	06-30-20
Hawaii	State Program	9	NA	06-30-20
Illinois	NELAP	5	200023	11-30-19
Illinois	NELAP		004553	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State		KY90125	12-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-20
Louisiana (DW)	NELAP	6	LA011	12-31-19
Louisiana (DW)	State		LA011	12-31-19
Maryland	State		310	09-30-20
Maryland	State Program	3	310	09-30-20
Michigan	State Program	5	9005	06-30-20
Missouri	State		780	06-30-22
Missouri	State Program	7	780	06-30-20
Nevada	State		MO000542020-1	07-31-20
New Jersey	NELAP	2	MO002	06-30-20
New Jersey	NELAP		MO002	06-30-20
New York	NELAP	2	11616	03-31-20
New York	NELAP		11616	04-01-20
North Dakota	State		R-207	06-30-20
North Dakota	State Program	8	R207	06-30-20
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State		9997	08-31-19
Oklahoma	State Program	6	9997	08-31-19 *
Pennsylvania	NELAP	3	68-00540	02-28-20
Pennsylvania	NELAP		68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-20
Texas	NELAP	6	T104704193-19-14	07-31-20
Texas	NELAP		T104704193-19-13	07-31-20
US Fish & Wildlife	Federal		058448	07-31-20
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542019-11	07-31-20
Virginia	NELAP	3	460230	06-14-20
Virginia	NELAP		10310	06-14-20
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19 *

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

Geosyntec consultants

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Knoxville, TN 37922
PH 865.330.0037
www.geosyntec.com

Memorandum

Date:	September 18, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-170841-1**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of three aqueous samples and one field duplicate collected 28 May 2019, as part of the Plant Smith sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by Environmental Protection Agency (EPA) Methods 3005A/6020
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C
- Chloride by SM 4500 CL-E
- Fluoride by SM 4500 F C
- Sulfate by SM 4500 SO^4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-170841-1	MW-02
400-170841-2	MW-03

Laboratory ID	Client ID
400-170841-3	MW-12
400-170841-4	DUP-01

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
⊗ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.1.2 Analysis Anomaly

The laboratory noted that the recovery of internal standard bismuth associated with lead was high and outside the control limits. Since lead was not detected in the samples, no qualifications were applied to the data.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 446512). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 400-170870-1. Metals were not detected in the equipment blank above the MDLs, with the following exception.

Boron (0.57 mg/L) was detected at a concentration greater than the practical quantitation limit (PQL) in EB-01. Therefore, the estimated concentration of boron in the associated sample was U* qualified as not detected at the reported concentration.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
MW-12	Boron	0.024	I	0.024	U*	BE

mg/L-milligrams per liter
I-laboratory flag defined as The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.7 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-170870-1. Metals were not detected in the field blank above the MDLs, with the following exception.

Barium (0.0034 mg/L) was detected at a concentration greater than the PQL in FB-01. Therefore, the concentrations of barium in the associated sample less than ten times the field blank concentration were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
MW-02	Barium	0.016	NA	0.016	J	BF
MW-03	Barium	0.021	NA	0.021	J	BF
MW-12	Barium	0.013	NA	0.013	J	BF
DUP-01	Barium	0.015	NA	0.015	J	BF

mg/L-milligrams per liter
NA-not applicable

1.8 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision [relative percent difference (RPD) $\leq$ 20% or difference < PQL] was demonstrated between the field duplicate and the original sample, MW-02.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO^4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues

were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

2.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batch 442615, chloride batches 444079 and 444098, fluoride batch 442670 and sulfate batches 444125). The wet chemistry parameters were not detected in the method blanks above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported for chloride and sulfate using sample MW-02. The recovery and RPD results were within the laboratory specified acceptance criteria with the following exceptions.

The recoveries of chloride in the MS/MSD pair using sample MWI-12A were low and outside the laboratory specified acceptance criteria. Since the chloride concentration in MWI-12A was greater than four times the chloride spiked concentration, no qualifications have been applied to the data, based on professional and technical judgement.

Batch MS/MSD pairs were also reported for fluoride and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

A sample set specific laboratory duplicate was reported for fluoride using sample MW-03. The RPD result was within the laboratory specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-170870-1. The wet chemistry parameters were not detected in the equipment blanks above the MDLs, with the following exception.

Sulfate was detected at an estimated concentration greater than the MDL and less than the PQL in EB-01. Therefore, the estimated concentrations of sulfate in the associated samples were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
MW-02	Sulfate	4.3	I	4.3	U*	BE
MW-12	Sulfate	3.0	I	3.0	U*	BE
DUP-01	Sulfate	4.3	I	4.3	U*	BE

mg/L-milligrams per liter
I-laboratory flag defined as The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

2.8 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-170870-1. The wet chemistry parameters were not detected in the field blank above the MDLs.

2.9 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision (RPD $\leq$ 20% or difference < PQL) was demonstrated between the field duplicate and the original sample, MW-02.

2.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	September 19, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – TestAmerica Job ID 400-170841-2**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of three aqueous samples, and one field duplicate sample, collected 28 May 2019, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by Environmental Protection Agency (EPA) Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-170841-1	MW-02
400-170841-2	MW-03

Laboratory ID	Client ID
400-170841-3	MW-12
400-170841-4	DUP-01

No preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
⊗ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Carriers
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-226 data (batch 431186) and one method blank was reported for the radium-228 data (batch 431246). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

The radium-228 result in the method blank in batch 431246 was more negative than the total propagated uncertainty (TPU). Therefore, the non-detect results were UJ qualified as estimated less than the MDC and the concentrations were J qualified as estimate for radium-228 and combined radium-226 and radium-228 in the associated samples.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier**	Reason Code***
DUP-01	Radium-228	0.688	*	0.688	J	13
DUP-01	Combined Radium 226 + 228	2.37	NA	2.37	J	13
MW-02	Radium-228	0.35	U *	0.35	UJ	13
MW-02	Combined Radium 226 + 228	1.16	NA	1.16	J	13
MW-03	Radium-228	0.109	U *	0.109	UJ	13
MW-03	Combined Radium 226 + 228	1.13	NA	1.13	J	13
MW-12	Radium-228	-0.0915	U *	-0.0915	UJ	13
MW-12	Combined Radium 226 + 228	-0.0564	U	-0.0564	UJ	13

pCi/L-picocuries per liter
U-not detected at or above the MDC
* laboratory flag defined as LCS or LCSD is outside acceptance limits.
NA-not applicable
** Validation qualifiers are defined in Attachment 1 at the end of this report
***Reason codes are defined in Attachment 2 at the end of this report

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS/laboratory control sample duplicate (LCSD) pair was reported for radium-226 and one LCS/LCSD pair was reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory specified acceptance criteria, with the following exception.

The recovery of radium-228 in the LCS in batch 431246 was high and outside the laboratory specified acceptance criteria. Therefore, the concentrations of radium-228 and combined radium 226 + 228 in sample DUP-01 were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
DUP-01	Radium-228	0.688	*	0.688	J	L+
DUP-01	Combined Radium 226 + 228	2.37	NA	2.37	J	L+

pCi/L-picocuries per liter
*laboratory flag defined as LCS or LCSD is outside acceptance limits.
NA-not applicable

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

One equipment blank, EB-01, was collected with the sample set; EB-01 was reported in laboratory report 440-170870-2. Radium-226 and Radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank, EB-01, was collected with the sample set; FB-01 was reported in laboratory report 440-170870-2. Radium-226 and Radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicate and the original sample MW-02.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	September 26, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-170869-1 Revision 1**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of three aqueous samples and one field duplicate collected 28 May 2019, as part of the Plant Smith sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO^4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-170869-1	MW-02
400-170869-2	MW-03

Laboratory ID	Client ID
400-170869-3	MW-12
400-170869-4	DUP-01

The laboratory report was revised on September 20, 2019 to remove redundant method blank and laboratory control sample (LCS) results from the metals data. The revised report was identified as 440-170869-1 Revision 1.

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.1.2 Analysis Anomaly

The laboratory noted that the recovery of internal standard bismuth associated with lead was high and outside the control limits. Since lead was not detected in the samples, no qualifications were applied to the data.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 447396). Metals were not detected in the method blank above the method detection limits (MDLs) for the associated analytical runs.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

One batch MS was reported for lithium. Since this was batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in 400-170870-1. Metals were not detected in the equipment blanks above the MDLs, with the following exceptions.

Boron (0.57 mg/L) was detected at a concentration greater than the PQL in EB-01. Therefore, the concentrations of boron less than ten times the equipment blank concentration were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
MWI-12A	Boron	1.7	NA	1.7	J	BE
PZ-11D	Boron	0.61	NA	0.61	J	BE

mg/L-milligrams per liter

NA-not applicable
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.7 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-170870-1. Metals were not detected in the field blank above the MDLs, with the following exception.

Barium (0.0034 mg/L) was detected at a concentration greater than the PQL in FB-01. Since barium was detected at concentrations greater than ten times the field blank concentration in the associated samples, no qualifications were applied to the data.

1.8 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision [relative percent difference (RPD) $\leq$ 20% or difference < PQL] was demonstrated between the field duplicate and the original sample, MW-02.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO^4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank

⊗ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

2.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batch 442778, chloride batches 444098 and 444747, fluoride batches 442822 and 443181 sulfate batch 444698). The wet chemistry parameters were not detected in the method blanks above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for fluoride using sample PZ-13D and chloride using sample MWI-12A. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of chloride in the MS/MSD pair using sample MWI-12A were low and outside the laboratory specified acceptance criteria. Since the chloride concentration in sample MWI-12A was greater than four times the spiked concentration, no qualifications were applied to the data.

The recoveries of fluoride in the MS/MSD pair using sample PZ-13D were low and outside the laboratory specified acceptance criteria. Therefore, the estimated fluoride concentration in sample PZ-13D was J qualified as estimated, based on professional and technical judgment.

Batch MS/MSD pairs were also reported for fluoride, sulfate and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-13D	Fluoride	0.040	I	0.040	J	M-

mg/L-milligrams per liter
I-laboratory flag defined as the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for TDS using samples MWI-12A and PZ-11D. The RPD results were within the laboratory specified acceptance criteria.

Two batch laboratory duplicates were also reported for fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-170870-1. The wet chemistry parameters were not detected in the equipment blanks above the MDLs, with the following exception.

Sulfate was detected at an estimated concentration greater than the MDL and less than the PQL in EB-01. Since sulfate was detected at concentrations greater than ten times the equipment blank concentration in the associated samples, no qualifications were applied to the data.

2.8 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-170870-1. The wet chemistry parameters were not detected in the field blank above the MDLs.

2.9 Field Duplicate

One field duplicate, DUP-01, was collected with the sample set. Acceptable precision (RPD ≤ 20% or difference < PQL) was demonstrated between the field duplicate and the original sample, MW-02.

2.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	September 18, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – TestAmerica Job ID 400-170869-2**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four aqueous samples, collected 29 May 2019, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by Environmental Protection Agency (EPA) Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-170869-1	MWI-12A
400-170869-2	PZ-11D

Laboratory ID	Client ID
400-170869-3	PZ-14
400-170869-4	PZ-13D

No preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-226 data (batch 431495) and one method blank was reported for the radium-228 data (batch 431600). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported for radium-226 and one LCS was reported for radium-228. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported for radium-226 and one batch laboratory duplicate was reported for radium-228. Since these were batch QC there was no impact on the data and qualifications were not applied.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-170870-2. Radium-226 and Radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank, EB-01, was collected with the sample set and reported in laboratory report 440-170870-2. Radium-226 and Radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

A field duplicate was not collected with the sample set.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	September 26, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-170870-1 Revision 1**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of eight aqueous samples, two field duplicates, two equipment blanks and two field blanks collected 29-30 May 2019, as part of the Plant Smith sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by Environmental Protection Agency (EPA) Methods 3005A/6020
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO^4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-170870-1	MW-06
400-170870-2	MW-07
400-170870-3	MW-08
400-170870-4	MW-09
400-170870-5	MW-10
400-170870-6	MW-11
400-170870-7	MW-13

Laboratory ID	Client ID
400-170870-8	MW-14
400-170870-9	DUP-02
400-170870-10	EB-01
400-170870-11	FB-01
400-170870-12	DUP-03
400-170870-13	FB-02
400-170870-14	EB-02

The laboratory report was revised on September 20, 2019 to remove rejected matrix spike/matrix spike duplicate (MS/MSD) results from the metals data. The revised report was identified as 400-170870-1 Revision 1.

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
⊗ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total

number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (two each for batches 446508 and 446512). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exceptions (only the blank detections that may affect the reported results were noted below).

Lithium was detected at an estimated concentration greater than the MDL and less than the practical quantitation limit (PQL) and barium (0.00290 mg/L) and calcium (6.71 mg/L) were detected at concentrations greater than PQLs in the method blank in preparation batch 446508 analyzed in analysis batch 451881. Since barium and lithium were not reported for the associated sample in analysis batch 451881 and calcium was detected at concentrations greater than ten times the method blank concentration in the associated samples, no qualifications were applied to the data, based on professional and technical judgment.

Barium was detected at an estimated concentration greater than the MDL and less than the PQL and boron (0.0195 mg/L) was detected at a concentration greater than PQL in the method blank in preparation batch 446508 analyzed in analysis batch 454608. Since barium was not reported for the associated sample in analysis batch 454608 and boron was not detected in the associated samples, no qualifications were applied to the data, based on professional and technical judgment.

Arsenic was detected at an estimated concentration greater than the MDL and less than the PQL in the method blank in preparation batch 446508 analyzed in analysis batch 447436. Therefore, the concentrations of arsenic less than ten times the method blank concentration were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
DUP-02	Arsenic	0.0015	V	0.0015	J	BL
DUP-03	Arsenic	0.0017	V	0.0017	J	BL

mg/L-milligrams per liter

V-laboratory flag defined as Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample MW-14. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set. Metals were not detected in the equipment blanks above the MDLs, with the following exceptions.

Boron (0.57 mg/L) was detected at a concentration greater than the practical quantitation limit (PQL) in EB-01. Therefore, the concentrations of boron less than ten times the equipment blank concentration were J qualified as estimated.

Barium was detected at an estimated concentration greater than the MDL and less than the PQL in EB-02. Since barium was detected at concentrations greater than ten times the equipment blank concentration in the associated samples, no qualifications were applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
MW-07	Boron	3.2	NA	3.2	J	BE
MW-11	Boron	4.1	NA	4.1	J	BE
MW-13	Boron	0.28	NA	0.28	J	BE

mg/L-milligrams per liter
NA-not applicable

1.7 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set. Metals were not detected in the field blanks above the MDLs, with the following exception.

Barium (0.0034 mg/L) was detected at a concentration greater than the practical quantitation limit (PQL) in FB-01. Since barium was detected at concentrations greater than ten times the field blank concentration in the associated samples, no qualifications were applied to the data.

1.8 Field Duplicate

Two field duplicates, DUP-02 and DUP-03, were collected with the sample set. Acceptable precision (RPD $\leq$ 20% or difference < PQL) was demonstrated between the field duplicates and the original samples, MW-07 and MW-10, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO^4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank

- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

2.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batch 442778, chloride batches 444098 and 444534, fluoride batch 442822 and sulfate batch 444516). The wet chemistry parameters were not detected in the method blanks above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for fluoride and chloride using sample MW-06. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of chloride were low and outside the laboratory specified acceptance criteria in the MS/MSD using sample MW-06. Since the concentration of chloride in sample MW-06 was greater than four times the spiked concentration, no qualifications were applied to the data, based on professional and technical judgment.

Batch MS/MSD pairs were also reported for sulfate and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for fluoride using sample DUP-02. The RPD result was within the laboratory specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set. The wet chemistry parameters were not detected in the equipment blanks above the MDLs, with the following exception.

Sulfate was detected at an estimated concentration greater than the MDL and less than the PQL in EB-01. Since sulfate was detected at concentrations greater than ten times the equipment blank concentration in the associated samples, no qualifications were applied to the data.

2.8 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set. The wet chemistry parameters were not detected in the field blanks above the MDLs, with the following exception.

Sulfate was detected at an estimated concentration greater than the MDL and less than the PQL in FB-02. Since sulfate was detected at concentrations greater than ten times the field blank concentration in the associated samples, no qualifications were applied to the data.

2.9 Field Duplicate

Two field duplicates, DUP-02 and DUP-03, were collected with the sample set. Acceptable precision (RPD $\leq$ 20% or difference < PQL) was demonstrated between the field duplicates and the original samples, MW-07 and MW-10, respectively.

2.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	September 18, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – TestAmerica Job ID 400-170870-2**

SITE: Plant Smith

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of eight aqueous samples, two field duplicate samples, two equipment blank and two field blanks, collected 29-30 May 2019, as part of the Plant Smith sampling event.

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by Environmental Protection Agency (EPA) Method 9315
- Radium-228 by EPA Method 9320
- Combined Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-170870-1	MW-06
400-170870-2	MW-07
400-170870-3	MW-08
400-170870-4	MW-09
400-170870-5	MW-10
400-170870-6	MW-11
400-170870-7	MW-13

Laboratory ID	Client ID
400-170870-8	MW-14
400-170870-9	DUP-02
400-170870-10	EB-01
400-170870-11	FB-01
400-170870-12	DUP-03
400-170870-13	FB-02
400-170870-14	EB-02

No preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium-226 and radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radiochemistry data reported in this package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-226 data (batches 431495 and 431743) and two method blanks were reported for the radium-228 data (batches 431600 and 431783). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported for radium-226 and two LCSs were reported for radium-228. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Two batch laboratory duplicates were reported for radium-226 and two batch laboratory duplicates were reported for radium-228. Since these were batch QC there was no impact on the data and qualifications were not applied.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

Two equipment blanks, EB-01 and EB-02, were collected with the sample set. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs.

1.9 Field Blank

Two field blanks, FB-01 and FB-02, were collected with the sample set. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs.

1.10 Field Duplicate

Two field duplicates, DUP-02 and DUP-03, were collected with the sample set. Acceptable precision [relative error ratio (RER) (2σ) < 3] was demonstrated between the field duplicates and the original samples MW-07 and MW-10, respectively.

1.11 Sensitivity

The samples were reported to the MDCs. Elevated non-detect results were reported due to reduced sample aliquot.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Product Name: Low-Flow System

Date: 2019-11-19 12:35:44

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	27 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	19.8 ft

Well Information:		Pumping Information:	
Well ID	PZ-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2105124 L
Well Total Depth	24.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	24.96 in
Depth to Water	2.47 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:16:34	300.10	24.03	6.40	9803.85	4.17	4.02	0.18	-312.42
Last 5	12:21:34	600.02	24.06	6.41	9773.53	4.22	4.25	0.15	-317.00
Last 5	12:26:34	900.02	24.07	6.41	9805.82	4.26	4.38	0.14	-320.26
Last 5	12:31:34	1200.02	24.17	6.39	9841.61	4.31	4.55	0.13	-321.55
Last 5									
Variance 0			0.04	0.01	-30.31			-0.03	-4.59
Variance 1			0.01	-0.00	32.29			-0.01	-3.25
Variance 2			0.10	-0.02	35.79			-0.01	-1.29

Notes

Sample time @ 1240. Sunny 70. FB-02@ 1230.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 08:10:27

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-09	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.08 in
Depth to Water	12.22 ft	Total Volume Pumped	20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:47:42	1800.02	22.40	6.56	7884.66	1.11	12.30	0.12	-209.51
Last 5	07:52:42	2100.02	22.58	6.57	7851.06	1.21	12.30	0.11	-209.02
Last 5	07:57:42	2400.02	22.71	6.57	7833.55	1.18	12.30	0.10	-207.99
Last 5	08:02:42	2700.02	22.81	6.57	7841.62	1.07	12.30	0.10	-207.58
Last 5	08:07:42	3000.02	22.86	6.58	7824.13	1.10	12.30	0.10	-207.56
Variance 0			0.13	-0.00	-17.51			-0.01	1.03
Variance 1			0.10	0.00	8.07			-0.00	0.41
Variance 2			0.05	0.01	-17.49			-0.00	0.03

Notes

Sample@0809, DUP-02 @0709, Sunny 54

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-18 14:37:55

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-03	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.19 in
Depth to Water	7.21 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:16:12	2100.02	22.50	4.81	62.82	12.60	7.40	0.06	129.63
Last 5	14:21:12	2400.02	22.53	4.81	62.80	10.80	7.40	0.05	128.13
Last 5	14:26:12	2700.02	22.47	4.82	62.86	10.10	7.40	0.05	126.58
Last 5	14:31:12	3000.02	22.43	4.81	63.01	10.60	7.40	0.05	125.58
Last 5	14:36:12	3300.02	22.44	4.82	62.75	10.30	7.40	0.05	124.25
Variance 0			-0.06	0.00	0.06			-0.00	-1.55
Variance 1			-0.04	-0.00	0.16			-0.00	-1.01
Variance 2			0.01	0.01	-0.26			-0.00	-1.33

Notes

Sample@1437 Sunny 69

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 13:57:48

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	GSA Delineation	Tubing Diameter	.17 in
Site Name	Crist GSA Wells	Tubing Length	60 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	52.4 ft

Well Information:		Pumping Information:	
Well ID	PZ-13d	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	57.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	16 in
Depth to Water	18.34 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:36:29	300.09	22.80	4.68	14203.79	4.12	19.70	0.29	-73.81
Last 5	13:41:29	600.02	22.69	4.63	14224.04	2.84	19.75	0.23	-81.25
Last 5	13:46:29	900.02	22.66	4.63	14189.35	1.22	19.77	0.20	-87.04
Last 5	13:51:29	1200.02	22.69	4.65	14181.57	1.08	19.77	0.19	-91.52
Last 5	13:56:29	1500.02	22.70	4.64	14196.26	0.96	19.77	0.18	-92.65
Variance 0			-0.03	0.01	-34.69			-0.03	-5.79
Variance 1			0.03	0.02	-7.78			-0.01	-4.48
Variance 2			0.01	-0.01	14.70			-0.01	-1.13

Notes

Sample@1357, FB-02@ 1230, Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-18 15:46:46

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-11	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	9.79 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:25:20	1200.02	23.03	6.42	10565.50	3.92	7.90	0.11	-317.04
Last 5	15:30:20	1500.02	22.97	6.42	10654.79	3.31	7.90	0.11	-321.60
Last 5	15:35:20	1800.02	22.84	6.42	10698.42	3.44	7.90	0.11	-324.59
Last 5	15:40:20	2100.02	22.80	6.42	10714.67	2.83	7.90	0.10	-326.46
Last 5	15:45:20	2400.02	22.71	6.41	10747.88	2.49	7.90	0.11	-327.00
Variance 0			-0.13	0.00	43.63			-0.00	-2.99
Variance 1			-0.05	-0.00	16.25			-0.00	-1.87
Variance 2			-0.09	-0.02	33.21			0.00	-0.54

Notes

Sample@1546 Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 12:11:12

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PO
Company Name	RDH	Tubing Type	PE
Project Name	Delineation	Tubing Diameter	.17 in
Site Name	Crist Delineation	Tubing Length	58 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	PZ-11d	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3488785 L
Well Total Depth	56 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	20 in
Depth to Water	8.50 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:51:04	300.02	24.34	6.83	5775.79	8.73	10.15	0.43	-126.56
Last 5	11:56:04	600.03	24.25	6.85	5804.89	5.67	10.27	0.23	-128.26
Last 5	12:01:04	900.02	24.22	6.85	5790.14	4.27	10.30	0.19	-128.46
Last 5	12:06:04	1200.06	24.08	6.84	5832.88	4.19	10.30	0.18	-128.75
Last 5									
Variance 0			-0.09	0.02	29.10			-0.20	-1.69
Variance 1			-0.03	-0.00	-14.75			-0.04	-0.20
Variance 2			-0.14	-0.00	42.74			-0.02	-0.29

Notes

Sample@1208, EB-02 @ 1220 Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 11:05:20

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PO
Company Name	RDH	Tubing Type	PE
Project Name	Delineation	Tubing Diameter	.17 in
Site Name	Crist Delineation	Tubing Length	20 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	10.5 ft

Well Information:		Pumping Information:	
Well ID	MWI-12a	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.1792685 L
Well Total Depth	15.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	32 in
Depth to Water	7.43 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:43:16	600.03	23.29	4.59	5442.99	8.56	10.18	0.23	104.05
Last 5	10:48:16	900.02	23.38	4.66	5139.69	5.25	10.22	0.28	89.69
Last 5	10:53:16	1200.02	23.47	4.74	4723.92	4.04	10.25	0.29	75.42
Last 5	10:58:16	1500.02	23.60	4.78	4676.35	1.90	10.25	0.26	71.29
Last 5	11:03:16	1800.03	23.66	4.81	4579.23	1.24	10.26	0.25	70.03
Variance 0			0.09	0.08	-415.77			0.01	-14.27
Variance 1			0.13	0.05	-47.57			-0.03	-4.13
Variance 2			0.06	0.03	-97.11			-0.01	-1.26

Notes

Sample 1104, Sunny 66

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-18 13:10:16

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	28 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	21 ft

Well Information:		Pumping Information:	
Well ID	MW-02	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2149758 L
Well Total Depth	26 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.13 in
Depth to Water	6.17 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:52:47	300.07	23.59	6.42	282.96	2.04	6.27	1.20	-82.48
Last 5	12:57:47	600.02	23.61	6.55	333.25	0.69	6.30	0.10	-109.11
Last 5	13:02:47	900.02	23.59	6.57	327.10	0.91	6.30	0.18	-107.89
Last 5	13:07:47	1200.02	23.65	6.59	329.58	0.92	6.30	0.15	-106.96
Last 5									
Variance 0			0.02	0.13	50.29			-1.10	-26.63
Variance 1			-0.01	0.02	-6.15			0.08	1.22
Variance 2			0.06	0.01	2.47			-0.04	0.93

Notes

Sample@1309, DUP-01@1209 , Sunny 69

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 09:07:21

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	44 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	36 ft

Well Information:		Pumping Information:	
Well ID	MW-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2863906 L
Well Total Depth	41 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	21 in
Depth to Water	22.86 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:50:03	300.02	23.38	7.05	6553.56	1.59	23.91	0.19	-266.41
Last 5	08:55:03	600.02	23.33	7.05	6545.02	1.41	23.94	0.15	-264.89
Last 5	09:00:03	900.02	23.33	7.04	6583.37	1.45	23.95	0.13	-262.14
Last 5	09:05:03	1200.02	23.43	7.03	6660.66	1.43	23.95	0.13	-264.34
Last 5									
Variance 0			-0.05	0.00	-8.53			-0.05	1.52
Variance 1			-0.01	-0.01	38.35			-0.01	2.75
Variance 2			0.10	-0.01	77.28			-0.01	-2.20

Notes

Sample @0906, EB-01@0920, Sunny 60

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-18 17:03:20

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-10	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	10.20 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	16:46:52	300.02	21.36	5.29	9472.40	4.99	11.03	0.16	-122.85
Last 5	16:51:52	600.02	21.28	5.29	9645.34	4.05	11.08	0.14	-136.64
Last 5	16:56:52	900.02	21.28	5.28	9714.12	2.94	11.08	0.13	-142.28
Last 5	17:01:52	1200.02	21.21	5.28	9726.13	2.34	11.08	0.12	-142.67
Last 5									
Variance 0			-0.08	0.00	172.94			-0.03	-13.79
Variance 1			0.00	-0.01	68.78			-0.01	-5.63
Variance 2			-0.07	-0.00	12.01			-0.01	-0.40

Notes

Sample @1703, sunny 54

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-18 16:04:39

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	MW-06	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	40 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	55.44 in
Depth to Water	13.88 ft	Total Volume Pumped	20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:38:40	1800.02	25.17	5.87	8548.82	3.40	18.25	0.12	-130.49
Last 5	15:43:40	2100.02	25.12	5.76	8717.29	3.67	18.33	0.11	-133.77
Last 5	15:48:42	2402.02	25.09	5.67	8816.93	3.55	18.39	0.10	-139.08
Last 5	15:53:43	2703.02	25.06	5.56	8969.69	3.55	18.45	0.11	-140.35
Last 5	15:58:43	3003.02	25.05	5.49	8991.52	3.57	18.50	0.10	-144.55
Variance 0			-0.03	-0.09	99.64			-0.00	-5.31
Variance 1			-0.03	-0.11	152.76			0.01	-1.27
Variance 2			-0.00	-0.07	21.83			-0.01	-4.20

Notes

Sample time @ 1605. Sunny 60.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 07:58:37

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	MW-07	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	40 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6.12 in
Depth to Water	13.11 ft	Total Volume Pumped	20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:36:22	1801.02	23.30	6.22	9000.46	8.33	13.62	0.08	-209.53
Last 5	07:41:22	2101.02	23.32	6.23	8986.42	6.41	13.62	0.08	-212.99
Last 5	07:46:25	2404.02	23.34	6.24	8995.09	3.80	13.62	0.07	-216.98
Last 5	07:51:25	2704.02	23.27	6.24	8990.17	3.55	13.62	0.08	-219.83
Last 5	07:56:25	3004.02	23.25	6.26	8993.75	3.46	13.62	0.07	-223.34
Variance 0			0.02	0.01	8.66			-0.00	-3.99
Variance 1			-0.07	0.01	-4.91			0.00	-2.85
Variance 2			-0.02	0.02	3.58			-0.00	-3.51

Notes

Sample time @ 0800. Sunny 50.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 09:22:56

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38.0 ft

Well Information:		Pumping Information:	
Well ID	MW-13	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	48.96 in
Depth to Water	16.77 ft	Total Volume Pumped	20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:00:43	1802.02	23.29	6.94	11952.64	0.53	20.54	0.10	-341.04
Last 5	09:05:43	2102.02	23.25	6.93	11949.75	0.55	20.68	0.09	-346.94
Last 5	09:10:43	2402.02	23.48	6.93	11964.38	0.58	20.73	0.08	-353.01
Last 5	09:15:43	2702.02	23.48	6.91	11974.81	0.64	20.79	0.08	-356.65
Last 5	09:20:43	3002.02	23.47	6.92	11930.15	0.65	20.85	0.09	-359.29
Variance 0			0.23	0.00	14.63			-0.01	-6.07
Variance 1			-0.00	-0.02	10.42			-0.00	-3.65
Variance 2			-0.01	0.01	-44.66			0.00	-2.64

Notes

Sample time@ 0925. Sunny 62. FB-01@ 0915.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-19 11:17:41

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-08	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	84 in
Depth to Water	18.97 ft	Total Volume Pumped	28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:54:08	3006.02	23.47	4.48	9399.14	1.82	25.73	0.13	-237.77
Last 5	10:59:08	3306.02	23.43	4.47	9424.94	1.90	25.80	0.13	-244.75
Last 5	11:04:08	3606.02	23.39	4.46	9404.29	1.88	25.84	0.13	-249.86
Last 5	11:09:10	3908.02	23.38	4.54	9411.73	1.86	25.90	0.13	-254.91
Last 5	11:14:13	4211.02	23.44	4.55	9445.52	1.85	25.97	0.13	-259.35
Variance 0			-0.05	-0.01	-20.65			-0.00	-5.11
Variance 1			-0.01	0.08	7.44			-0.00	-5.05
Variance 2			0.06	0.01	33.79			0.00	-4.44

Notes

Sample time @ 1120. Sunny 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-18 13:44:55

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	32 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	MW-12	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2328295 L
Well Total Depth	32 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	73.44 in
Depth to Water	9.90 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			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:19:58	1200.01	25.03	6.15	1040.08	18.60	14.65	0.14	-76.29
Last 5	13:24:58	1500.01	25.03	6.17	1040.31	9.40	15.03	0.13	-76.71
Last 5	13:30:00	1802.01	25.01	6.16	1034.44	4.38	15.27	0.13	-76.69
Last 5	13:35:05	2107.01	25.08	6.15	1023.95	1.60	15.67	0.13	-75.91
Last 5	13:40:05	2407.02	25.10	6.14	1014.59	1.68	16.02	0.12	-75.40
Variance 0			-0.02	-0.02	-5.86			-0.01	0.02
Variance 1			0.07	-0.01	-10.49			-0.00	0.78
Variance 2			0.03	-0.01	-9.36			-0.00	0.52

Notes

Sample time@ 1350. Sunny 65.

Grab Samples

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179848-1
Laboratory Sample Delivery Group: Downgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
1/10/2020 2:56:38 PM

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(850)471-6222
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-179848-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179848-1

Metals
Method 6020: The laboratory control sample (LCS) and CCV for preparation batch 400-467033 and analytical batch 400-468043 recovered outside control limits for the following analytes: Boron. These analytes were over 10x the value of the LCS and CCV; therefore, the data have been reported.

Method 6020: The method blank for preparation batch 400-467033 and analytical batch 400-468594 contained Calcium and sodium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: FB-01 (400-179848-10) and EB-01 (400-179848-11). Elevated reporting limits (RLs) are provided.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-467033 and analytical batch 400-468043 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The method blank for preparation batch 400-473080 and analytical batch 400-473236 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

General Chemistry
Method SM 2540C: The sample duplicate (DUP) precision for analytical batch 400-466936 was outside control limits. Sample non-homogeneity is suspected.

Methods SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-179848-1), MW-07 (400-179848-2), MW-08 (400-179848-3), (400-179916-A-1), (400-179916-A-1 MS) and (400-179916-A-1 MSD). Elevated reporting limits (RLs) are provided.

Methods SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-467500 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-468407 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-179848-A-4 MS) and (400-179848-A-4 MSD)

Methods SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-09 (400-179848-4), MW-10 (400-179848-5), MW-11 (400-179848-6), MW-13 (400-179848-7), MW-14 (400-179848-8), DUP-02 (400-179848-9), (400-179848-A-4 MS) and (400-179848-A-4 MSD). Elevated reporting limits (RLs) are provided.

Method SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-468367 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (500-173774-A-1 MS), (500-173774-A-1 MSD), (400-179848-A-2 MS) and (400-179848-A-2 MSD)

Method SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (500-173774-A-1 MS), (500-173774-A-1 MSD), (400-179848-A-2 MS) and (400-179848-A-2 MSD)

Job ID: 400-179848-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-06 (400-179848-1), MW-07 (400-179848-2), MW-08 (400-179848-3), MW-09 (400-179848-4), MW-10 (400-179848-5), MW-11 (400-179848-6), MW-13 (400-179848-7), MW-14 (400-179848-8), DUP-02 (400-179848-9), (500-173774-A-1), (500-173774-A-1 MS), (500-173774-A-1 MSD), (400-179848-A-2 MS) and (400-179848-A-2 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-06 — Lab Sample ID: 400-179848-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0031		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	9.0	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	240		2.5	1.3	mg/L	50		6020	Total Recoverable
Lithium	0.028	I	0.050	0.019	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	6000		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3000		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	350		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	5.49				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-07 — Lab Sample ID: 400-179848-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0051		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.12		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	4.3	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	360		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0016	I	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Molybdenum	0.0068	I	0.015	0.0045	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8200		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	3400		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	650		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.26				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-08 — Lab Sample ID: 400-179848-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0058		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	14	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	530		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	9800		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	3300		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	720		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.55				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-09 — Lab Sample ID: 400-179848-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0050		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.081		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	11	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	270		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	5300		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2200		100	70	mg/L	50		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1100	I	2500	700	mg/L	500		SM 4500 SO4 E	Total/NA
Field pH	6.58				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 400-179848-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0042		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.097		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	11	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	460		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	6300		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2400		100	70	mg/L	50		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	660		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	5.28				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 400-179848-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.012		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.17		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	4.7	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	220		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0020	I	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Molybdenum	0.022		0.015	0.0045	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	6900		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	3200		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	340		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.41				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 400-179848-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0071		0.0013	0.00039	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-13 (Continued) — Lab Sample ID: 400-179848-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.080		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	16	J3	1.0	0.36	mg/L	100		6020	Total Recoverable
Calcium	660		5.0	2.5	mg/L	100		6020	Total Recoverable
Lithium	0.16		0.10	0.038	mg/L	100		6020	Total Recoverable
Molybdenum	0.019		0.015	0.0045	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8500		250	170	mg/L	1		SM 2540C	Total/NA
Chloride	4600		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	670		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 400-179848-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0086		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.048		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	14	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	230		2.5	1.3	mg/L	50		6020	Total Recoverable
Molybdenum	0.022		0.015	0.0045	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4200		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	1800		100	70	mg/L	50		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	65	I	150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	7.03				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-179848-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0062		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.087		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	11	J3	0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	280		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	5400		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	2200		100	70	mg/L	50		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	260		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.58				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: FB-01 — Lab Sample ID: 400-179848-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.0062	I	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.066		0.050	0.025	mg/L	1		6020	Total Recoverable
Sulfate	2.0	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-179848-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.0082	I	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.084		0.050	0.025	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179848-1	MW-06	Water	11/18/19 16:05	11/19/19 15:42	
400-179848-2	MW-07	Water	11/19/19 08:00	11/19/19 15:42	
400-179848-3	MW-08	Water	11/19/19 11:20	11/19/19 15:42	
400-179848-4	MW-09	Water	11/19/19 08:09	11/19/19 15:42	
400-179848-5	MW-10	Water	11/18/19 17:03	11/19/19 15:42	
400-179848-6	MW-11	Water	11/18/19 15:46	11/19/19 15:42	
400-179848-7	MW-13	Water	11/19/19 09:25	11/19/19 15:42	
400-179848-8	MW-14	Water	11/19/19 09:06	11/19/19 15:42	
400-179848-9	DUP-02	Water	11/19/19 07:09	11/19/19 15:42	
400-179848-10	FB-01	Water	11/19/19 09:15	11/19/19 15:42	
400-179848-11	EB-01	Water	11/19/19 09:20	11/19/19 15:42	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-06

Date Collected: 11/18/19 16:05
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0031**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 22:33	5
Barium	**0.060**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 22:33	5
Boron	**9.0**	**J3**	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:08	50
Calcium	**240**		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:08	50
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 22:33	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 22:33	5
Lithium	**0.028**	**I**	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:08	50
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 22:33	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6000**		50	34	mg/L			11/21/19 09:41	1
Chloride	**3000**		200	140	mg/L			11/25/19 23:07	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			12/03/19 21:20	1
Sulfate	**350**		50	14	mg/L			11/27/19 20:32	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.49**				SU			11/18/19 16:05	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-07
Date Collected: 11/19/19 08:00
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-2
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0051**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 22:38	5
Barium	**0.12**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 22:38	5
Boron	**4.3**	**J3**	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:13	50
Calcium	**360**		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:13	50
Chromium	**0.0016**	**I**	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 22:38	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 22:38	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:13	50
Molybdenum	**0.0068**	**I**	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 22:38	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8200**		130	85	mg/L			11/21/19 13:17	1
Chloride	**3400**		200	140	mg/L			11/25/19 23:07	100
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 21:32	1
Sulfate	**650**		150	42	mg/L			11/27/19 20:32	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.26**				SU			11/19/19 08:00	1

Client Sample ID: MW-08

Date Collected: 11/19/19 11:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0058**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 22:43	5
Barium	**0.060**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 22:43	5
Boron	**14**	**J3**	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:18	50
Calcium	**530**		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:18	50
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 22:43	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 22:43	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:18	50
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 22:43	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9800**		130	85	mg/L			11/21/19 13:17	1
Chloride	**3300**		200	140	mg/L			11/25/19 23:07	100
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 21:36	1
Sulfate	**720**		150	42	mg/L			11/27/19 20:32	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.55**				SU			11/19/19 11:20	1

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-09
Date Collected: 11/19/19 08:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-4
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0050		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 22:48	5
Barium	0.081		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 22:48	5
Boron	11	J3	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:23	50
Calcium	270		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:23	50
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 22:48	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 22:48	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:23	50
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 22:48	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5300		50	34	mg/L			11/21/19 13:17	1
Chloride	2200		100	70	mg/L			11/26/19 00:44	50
Fluoride	0.040	I	0.10	0.032	mg/L			12/03/19 21:40	1
Sulfate	1100	I	2500	700	mg/L			11/27/19 20:32	500

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.58				SU			11/19/19 08:09	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-10

Date Collected: 11/18/19 17:03
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0042**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 22:53	5
Barium	**0.097**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 22:53	5
Boron	**11**	**J3**	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:28	50
Calcium	**460**		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:28	50
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 22:53	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 22:53	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:28	50
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 22:53	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6300**		50	34	mg/L			11/21/19 09:41	1
Chloride	**2400**		100	70	mg/L			11/26/19 00:44	50
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			12/03/19 16:58	1
Sulfate	**660**		150	42	mg/L			11/27/19 20:32	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.28**				SU			11/18/19 17:03	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-11

Date Collected: 11/18/19 15:46
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.012**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 22:58	5
Barium	**0.17**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 22:58	5
Boron	**4.7**	**J3**	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:33	50
Calcium	**220**		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:33	50
Chromium	**0.0020**	**I**	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 22:58	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 22:58	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:33	50
Molybdenum	**0.022**		0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 22:58	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6900**		130	85	mg/L			11/21/19 09:41	1
Chloride	**3200**		200	140	mg/L			11/26/19 01:08	100
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 17:02	1
Sulfate	**340**		50	14	mg/L			11/27/19 20:32	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.41**				SU			11/18/19 15:46	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-13

Date Collected: 11/19/19 09:25
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0071**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:03	5
Barium	**0.080**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:03	5
Boron	**16**	**J3**	1.0	0.36	mg/L		11/21/19 23:00	11/29/19 19:38	100
Calcium	**660**		5.0	2.5	mg/L		11/21/19 23:00	11/29/19 19:38	100
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:03	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:03	5
Lithium	**0.16**		0.10	0.038	mg/L		11/21/19 23:00	11/29/19 19:38	100
Molybdenum	**0.019**		0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:03	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8500**		250	170	mg/L			11/21/19 13:17	1
Chloride	**4600**		200	140	mg/L			11/26/19 01:08	100
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			12/03/19 21:44	1
Sulfate	**670**		150	42	mg/L			11/27/19 20:32	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.92**				SU			11/19/19 09:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-14

Date Collected: 11/19/19 09:06
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0086**		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:18	5
Barium	**0.048**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:18	5
Boron	**14**	**J3**	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:43	50
Calcium	**230**		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:43	50
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:18	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:18	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:43	50
Molybdenum	**0.022**		0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:18	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4200**		50	34	mg/L			11/21/19 13:17	1
Chloride	**1800**		100	70	mg/L			11/26/19 00:47	50
Fluoride	**0.10**		0.10	0.032	mg/L			12/03/19 21:48	1
Sulfate	**65**	**I**	150	42	mg/L			11/27/19 20:32	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.03**				SU			11/19/19 09:06	1

Client Sample ID: DUP-02

Date Collected: 11/19/19 07:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0062		0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:23	5
Barium	0.087		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:23	5
Boron	11	J3	0.50	0.18	mg/L		11/21/19 23:00	11/29/19 19:49	50
Calcium	280		2.5	1.3	mg/L		11/21/19 23:00	11/29/19 19:49	50
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:23	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:23	5
Lithium	0.019	U	0.050	0.019	mg/L		11/21/19 23:00	11/29/19 19:49	50
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:23	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5400		50	34	mg/L			11/21/19 13:17	1
Chloride	2200		100	70	mg/L			11/26/19 00:47	50
Fluoride	0.040	I	0.10	0.032	mg/L			12/03/19 21:52	1
Sulfate	260		150	42	mg/L			11/27/19 20:32	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.58				SU			11/19/19 07:09	1

Client Sample ID: FB-01

Date Collected: 11/19/19 09:15
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:28	5
Barium	0.00070	U	0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:28	5
Boron	**0.0062**	**I**	0.010	0.0036	mg/L		01/06/20 18:50	01/07/20 21:40	1
Calcium	**0.066**		0.050	0.025	mg/L		11/21/19 23:00	12/04/19 16:43	1
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:28	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:28	5
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/21/19 23:00	11/30/19 16:16	1
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:28	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 13:17	1
Chloride	1.4	U	2.0	1.4	mg/L			11/26/19 00:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 21:56	1
Sulfate	**2.0**	**I**	5.0	1.4	mg/L			11/27/19 20:32	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: EB-01

Date Collected: 11/19/19 09:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-11

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:33	5
Barium	0.00070	U	0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:33	5
Boron	**0.0082**	**I**	0.010	0.0036	mg/L		01/06/20 18:50	01/07/20 22:08	1
Calcium	**0.084**		0.050	0.025	mg/L		11/21/19 23:00	12/04/19 16:53	1
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:33	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:33	5
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/21/19 23:00	11/30/19 16:26	1
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:33	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 13:17	1
Chloride	1.4	U	2.0	1.4	mg/L			11/26/19 00:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 17:06	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/27/19 20:32	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-06
Date Collected: 11/18/19 16:05
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 22:33	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:08	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466894	11/21/19 09:41	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	467500	11/25/19 23:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:20	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 16:05	EHS	TAL PEN

Client Sample ID: MW-07
Date Collected: 11/19/19 08:00
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 22:38	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:13	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	467500	11/25/19 23:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:32	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/19/19 08:00	EHS	TAL PEN

Client Sample ID: MW-08
Date Collected: 11/19/19 11:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 22:43	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:18	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	467500	11/25/19 23:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:36	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/19/19 11:20	EHS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-09
Date Collected: 11/19/19 08:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 22:48	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:23	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	468407	11/26/19 00:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:40	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		500	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/19/19 08:09	EHS	TAL PEN

Client Sample ID: MW-10
Date Collected: 11/18/19 17:03
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 22:53	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:28	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466894	11/21/19 09:41	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	468407	11/26/19 00:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:58	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 17:03	EHS	TAL PEN

Client Sample ID: MW-11
Date Collected: 11/18/19 15:46
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 22:58	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:33	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466894	11/21/19 09:41	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	468407	11/26/19 01:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 17:02	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 15:46	EHS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: MW-13
Date Collected: 11/19/19 09:25
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:03	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		100	468043	11/29/19 19:38	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	468407	11/26/19 01:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:44	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/19/19 09:25	EHS	TAL PEN

Client Sample ID: MW-14
Date Collected: 11/19/19 09:06
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:18	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:43	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	468407	11/26/19 00:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:48	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/19/19 09:06	EHS	TAL PEN

Client Sample ID: DUP-02
Date Collected: 11/19/19 07:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:23	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		50	468043	11/29/19 19:49	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	468407	11/26/19 00:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:52	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/19/19 07:09	EHS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Client Sample ID: FB-01

Date Collected: 11/19/19 09:15
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:28	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 16:16	LDC	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468800	12/04/19 16:43	AC	TAL PEN
Total Recoverable	Prep	3005A			473080	01/06/20 18:50	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473236	01/07/20 21:40	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468407	11/26/19 00:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468570	12/03/19 21:56	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: EB-01

Date Collected: 11/19/19 09:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:33	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 16:26	LDC	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468800	12/04/19 16:53	AC	TAL PEN
Total Recoverable	Prep	3005A			473080	01/06/20 18:50	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473236	01/07/20 22:08	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468407	11/26/19 00:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 17:06	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468367	11/27/19 20:32	RRC	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 467033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total Recoverable	Water	3005A	
400-179848-2	MW-07	Total Recoverable	Water	3005A	
400-179848-3	MW-08	Total Recoverable	Water	3005A	
400-179848-4	MW-09	Total Recoverable	Water	3005A	
400-179848-5	MW-10	Total Recoverable	Water	3005A	
400-179848-6	MW-11	Total Recoverable	Water	3005A	
400-179848-7	MW-13	Total Recoverable	Water	3005A	
400-179848-8	MW-14	Total Recoverable	Water	3005A	
400-179848-9	DUP-02	Total Recoverable	Water	3005A	
400-179848-10	FB-01	Total Recoverable	Water	3005A	
400-179848-11	EB-01	Total Recoverable	Water	3005A	
MB 400-467033/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-467033/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179825-K-5-B MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179825-K-5-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 467875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total Recoverable	Water	6020	467033
400-179848-2	MW-07	Total Recoverable	Water	6020	467033
400-179848-3	MW-08	Total Recoverable	Water	6020	467033
400-179848-4	MW-09	Total Recoverable	Water	6020	467033
400-179848-5	MW-10	Total Recoverable	Water	6020	467033
400-179848-6	MW-11	Total Recoverable	Water	6020	467033
400-179848-7	MW-13	Total Recoverable	Water	6020	467033
400-179848-8	MW-14	Total Recoverable	Water	6020	467033
400-179848-9	DUP-02	Total Recoverable	Water	6020	467033
400-179848-10	FB-01	Total Recoverable	Water	6020	467033
400-179848-11	EB-01	Total Recoverable	Water	6020	467033

Analysis Batch: 468043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total Recoverable	Water	6020	467033
400-179848-2	MW-07	Total Recoverable	Water	6020	467033
400-179848-3	MW-08	Total Recoverable	Water	6020	467033
400-179848-4	MW-09	Total Recoverable	Water	6020	467033
400-179848-5	MW-10	Total Recoverable	Water	6020	467033
400-179848-6	MW-11	Total Recoverable	Water	6020	467033
400-179848-7	MW-13	Total Recoverable	Water	6020	467033
400-179848-8	MW-14	Total Recoverable	Water	6020	467033
400-179848-9	DUP-02	Total Recoverable	Water	6020	467033
MB 400-467033/1-A	Method Blank	Total Recoverable	Water	6020	467033
LCS 400-467033/2-A	Lab Control Sample	Total Recoverable	Water	6020	467033
400-179825-K-5-B MS	Matrix Spike	Total Recoverable	Water	6020	467033
400-179825-K-5-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467033

Analysis Batch: 468179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-10	FB-01	Total Recoverable	Water	6020	467033
400-179848-11	EB-01	Total Recoverable	Water	6020	467033

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Metals

Analysis Batch: 468800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-10	FB-01	Total Recoverable	Water	6020	467033
400-179848-11	EB-01	Total Recoverable	Water	6020	467033
LCS 400-467033/2-A	Lab Control Sample	Total Recoverable	Water	6020	467033

Prep Batch: 473080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-10	FB-01	Total Recoverable	Water	3005A	
400-179848-11	EB-01	Total Recoverable	Water	3005A	
MB 400-473080/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-473080/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179848-10 MS	FB-01	Total Recoverable	Water	3005A	
400-179848-10 MSD	FB-01	Total Recoverable	Water	3005A	

Analysis Batch: 473236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-10	FB-01	Total Recoverable	Water	6020	473080
400-179848-11	EB-01	Total Recoverable	Water	6020	473080
MB 400-473080/1-A	Method Blank	Total Recoverable	Water	6020	473080
LCS 400-473080/2-A	Lab Control Sample	Total Recoverable	Water	6020	473080
400-179848-10 MS	FB-01	Total Recoverable	Water	6020	473080
400-179848-10 MSD	FB-01	Total Recoverable	Water	6020	473080

General Chemistry

Analysis Batch: 466894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	SM 2540C	
400-179848-5	MW-10	Total/NA	Water	SM 2540C	
400-179848-6	MW-11	Total/NA	Water	SM 2540C	
MB 400-466894/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466894/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179845-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 466936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-2	MW-07	Total/NA	Water	SM 2540C	
400-179848-3	MW-08	Total/NA	Water	SM 2540C	
400-179848-4	MW-09	Total/NA	Water	SM 2540C	
400-179848-7	MW-13	Total/NA	Water	SM 2540C	
400-179848-8	MW-14	Total/NA	Water	SM 2540C	
400-179848-9	DUP-02	Total/NA	Water	SM 2540C	
400-179848-10	FB-01	Total/NA	Water	SM 2540C	
400-179848-11	EB-01	Total/NA	Water	SM 2540C	
MB 400-466936/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466936/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179851-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-179923-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 467500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 467500 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-2	MW-07	Total/NA	Water	SM 4500 Cl- E	
400-179848-3	MW-08	Total/NA	Water	SM 4500 Cl- E	
MB 400-467500/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-467500/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-467500/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179916-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179916-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 468367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	SM 4500 SO4 E	
400-179848-2	MW-07	Total/NA	Water	SM 4500 SO4 E	
400-179848-3	MW-08	Total/NA	Water	SM 4500 SO4 E	
400-179848-4	MW-09	Total/NA	Water	SM 4500 SO4 E	
400-179848-5	MW-10	Total/NA	Water	SM 4500 SO4 E	
400-179848-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
400-179848-7	MW-13	Total/NA	Water	SM 4500 SO4 E	
400-179848-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
400-179848-9	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-179848-10	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-179848-11	EB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-468367/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-468367/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-468367/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-179848-2 MS	MW-07	Total/NA	Water	SM 4500 SO4 E	
400-179848-2 MSD	MW-07	Total/NA	Water	SM 4500 SO4 E	
500-173774-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
500-173774-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 468407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-4	MW-09	Total/NA	Water	SM 4500 Cl- E	
400-179848-5	MW-10	Total/NA	Water	SM 4500 Cl- E	
400-179848-6	MW-11	Total/NA	Water	SM 4500 Cl- E	
400-179848-7	MW-13	Total/NA	Water	SM 4500 Cl- E	
400-179848-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
400-179848-9	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-179848-10	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-179848-11	EB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-468407/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-468407/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-468407/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179848-4 MS	MW-09	Total/NA	Water	SM 4500 Cl- E	
400-179848-4 MSD	MW-09	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 468526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-5	MW-10	Total/NA	Water	SM 4500 F C	
400-179848-6	MW-11	Total/NA	Water	SM 4500 F C	
400-179848-11	EB-01	Total/NA	Water	SM 4500 F C	
MB 400-468526/15	Method Blank	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 468526 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-468526/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 468570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	SM 4500 F C	
400-179848-2	MW-07	Total/NA	Water	SM 4500 F C	
400-179848-3	MW-08	Total/NA	Water	SM 4500 F C	
400-179848-4	MW-09	Total/NA	Water	SM 4500 F C	
400-179848-7	MW-13	Total/NA	Water	SM 4500 F C	
400-179848-8	MW-14	Total/NA	Water	SM 4500 F C	
400-179848-9	DUP-02	Total/NA	Water	SM 4500 F C	
400-179848-10	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-468570/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-468570/8	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-179522-E-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-179522-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-179848-1 MS	MW-06	Total/NA	Water	SM 4500 F C	
400-179848-1 MSD	MW-06	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 471124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	Field Sampling	
400-179848-2	MW-07	Total/NA	Water	Field Sampling	
400-179848-3	MW-08	Total/NA	Water	Field Sampling	
400-179848-4	MW-09	Total/NA	Water	Field Sampling	
400-179848-5	MW-10	Total/NA	Water	Field Sampling	
400-179848-6	MW-11	Total/NA	Water	Field Sampling	
400-179848-7	MW-13	Total/NA	Water	Field Sampling	
400-179848-8	MW-14	Total/NA	Water	Field Sampling	
400-179848-9	DUP-02	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-467033/1-A
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/21/19 23:00	11/29/19 18:33	1
Barium	0.00014	U	0.00050	0.00014	mg/L		11/21/19 23:00	11/29/19 18:33	1
Calcium	0.025	U	0.050	0.025	mg/L		11/21/19 23:00	11/29/19 18:33	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/21/19 23:00	11/29/19 18:33	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/21/19 23:00	11/29/19 18:33	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/21/19 23:00	11/29/19 18:33	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/21/19 23:00	11/29/19 18:33	1

Lab Sample ID: LCS 400-467033/2-A
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0511		mg/L		102	80 - 120
Barium	0.0500	0.0473		mg/L		95	80 - 120
Calcium	5.00	5.32		mg/L		106	80 - 120
Chromium	0.0500	0.0510		mg/L		102	80 - 120
Lead	0.0500	0.0489		mg/L		98	80 - 120
Lithium	0.0500	0.0507		mg/L		101	80 - 120
Molybdenum	0.0500	0.0520		mg/L		104	80 - 120

Lab Sample ID: LCS 400-467033/2-A
Matrix: Water
Analysis Batch: 468800

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.113		mg/L		113	80 - 120

Lab Sample ID: 400-179825-K-5-B MS
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0013		0.0500	0.0506		mg/L		98	75 - 125
Barium	0.30		0.0500	0.355		mg/L		109	75 - 125
Boron	0.13	V J3	0.100	0.224	V	mg/L		97	75 - 125
Calcium	130	L	5.00	136	L J3	mg/L		149	75 - 125
Chromium	0.00020	U	0.0500	0.0509		mg/L		102	75 - 125
Lead	0.000099	I	0.0500	0.0478		mg/L		95	75 - 125
Lithium	0.015		0.0500	0.0656		mg/L		102	75 - 125
Molybdenum	0.0014	I	0.0500	0.0544		mg/L		106	75 - 125

Lab Sample ID: 400-179825-K-5-C MSD
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0013		0.0500	0.0497		mg/L		97	75 - 125	2	20
Barium	0.30		0.0500	0.355		mg/L		110	75 - 125	0	20

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

Lab Sample ID: 400-179825-K-5-C MSD
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.13	V J3	0.100	0.224	V	mg/L		97	75 - 125	0	20
Calcium	130	L	5.00	133	L	mg/L		106	75 - 125	2	20
Chromium	0.00020	U	0.0500	0.0501		mg/L		100	75 - 125	2	20
Lead	0.000099	I	0.0500	0.0471		mg/L		94	75 - 125	1	20
Lithium	0.015		0.0500	0.0626		mg/L		96	75 - 125	5	20
Molybdenum	0.0014	I	0.0500	0.0538		mg/L		105	75 - 125	1	20

Lab Sample ID: MB 400-473080/1-A
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00743	I	0.010	0.0036	mg/L		01/06/20 18:50	01/07/20 21:29	1

Lab Sample ID: LCS 400-473080/2-A
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: 400-179848-10 MS
Matrix: Water
Analysis Batch: 473236

Client Sample ID: FB-01
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.0062	I	0.100	0.109		mg/L		103	75 - 125

Lab Sample ID: 400-179848-10 MSD
Matrix: Water
Analysis Batch: 473236

Client Sample ID: FB-01
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.0062	I	0.100	0.117		mg/L		111	75 - 125	7	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-466894/1
Matrix: Water
Analysis Batch: 466894

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 09:41	1

Lab Sample ID: LCS 400-466894/2
Matrix: Water
Analysis Batch: 466894

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	302		mg/L		103	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-179845-A-1 DU
Matrix: Water
Analysis Batch: 466894

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	260			266		mg/L				2	5

Lab Sample ID: MB 400-466936/1
Matrix: Water
Analysis Batch: 466936

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 13:17	1

Lab Sample ID: LCS 400-466936/2
Matrix: Water
Analysis Batch: 466936

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	356		mg/L		122	78 - 122		

Lab Sample ID: 400-179851-A-4 DU
Matrix: Water
Analysis Batch: 466936

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	190			170	J3	mg/L				9	5

Lab Sample ID: 400-179923-B-1 DU
Matrix: Water
Analysis Batch: 466936

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	120			130		mg/L				5	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-467500/6
Matrix: Water
Analysis Batch: 467500

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/25/19 22:16	1

Lab Sample ID: LCS 400-467500/7
Matrix: Water
Analysis Batch: 467500

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			30.0	32.6		mg/L		109	90 - 110		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MRL 400-467500/3
Matrix: Water
Analysis Batch: 467500

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.35	I	mg/L		68	50 - 150		

Lab Sample ID: 400-179916-A-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	330		10.0	331	J3	mg/L		-28	73 - 120		

Lab Sample ID: 400-179916-A-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	330		10.0	328	J3	mg/L		-60	73 - 120	1	8

Lab Sample ID: MB 400-468407/6
Matrix: Water
Analysis Batch: 468407

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/26/19 00:18	1

Lab Sample ID: LCS 400-468407/7
Matrix: Water
Analysis Batch: 468407

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			30.0	33.1		mg/L		110	90 - 110		

Lab Sample ID: MRL 400-468407/3
Matrix: Water
Analysis Batch: 468407

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.39	I	mg/L		69	50 - 150		

Lab Sample ID: 400-179848-4 MS
Matrix: Water
Analysis Batch: 468407

Client Sample ID: MW-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2200		10.0	2160	J3	mg/L		-354	73 - 120		

Lab Sample ID: 400-179848-4 MSD
Matrix: Water
Analysis Batch: 468407

Client Sample ID: MW-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2200		10.0	2140	J3	mg/L		-530	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-468526/15
Matrix: Water
Analysis Batch: 468526

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 15:12	1

Lab Sample ID: LCS 400-468526/14
Matrix: Water
Analysis Batch: 468526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.20		mg/L		105	90 - 110

Lab Sample ID: 240-122625-F-1 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.26		1.00	1.28		mg/L		102	75 - 125

Lab Sample ID: 240-122625-F-1 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.26		1.00	1.23		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-180015-B-3 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.54		1.00	1.44		mg/L		90	75 - 125

Lab Sample ID: 400-180015-B-3 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.54		1.00	1.53	J3	mg/L		99	75 - 125	6	4

Lab Sample ID: MB 400-468570/3
Matrix: Water
Analysis Batch: 468570

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 20:40	1

Lab Sample ID: LCS 400-468570/8
Matrix: Water
Analysis Batch: 468570

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.20		mg/L		105	90 - 110

Method: SM 4500 F C - Fluoride

Lab Sample ID: 400-179522-E-3 MS
Matrix: Water
Analysis Batch: 468570

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.032	U	1.00	1.02		mg/L		102	75 - 125		

Lab Sample ID: 400-179522-E-3 MSD
Matrix: Water
Analysis Batch: 468570

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.032	U	1.00	1.04		mg/L		104	75 - 125	2	4

Lab Sample ID: 400-179848-1 MS
Matrix: Water
Analysis Batch: 468570

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.050	I	1.00	0.960		mg/L		91	75 - 125		

Lab Sample ID: 400-179848-1 MSD
Matrix: Water
Analysis Batch: 468570

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	I	1.00	0.940		mg/L		89	75 - 125	2	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-468367/6
Matrix: Water
Analysis Batch: 468367

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			11/27/19 20:32	1

Lab Sample ID: LCS 400-468367/7
Matrix: Water
Analysis Batch: 468367

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	15.4		mg/L		102	90 - 110		

Lab Sample ID: MRL 400-468367/3
Matrix: Water
Analysis Batch: 468367

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	5.89		mg/L		118	50 - 150		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-179848-2 MS
Matrix: Water
Analysis Batch: 468367

Client Sample ID: MW-07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	650		9.90	630	J3	mg/L		-174	77 - 128		

Lab Sample ID: 400-179848-2 MSD
Matrix: Water
Analysis Batch: 468367

Client Sample ID: MW-07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	650		9.90	610	J3	mg/L		-378	77 - 128	3	5

Lab Sample ID: 500-173774-A-1 MS
Matrix: Water
Analysis Batch: 468367

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	680		9.90	728	J3	mg/L		430	77 - 128		

Lab Sample ID: 500-173774-A-1 MSD
Matrix: Water
Analysis Batch: 468367

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	680		9.90	832	J3	mg/L		1485	77 - 128	13	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Brett Starles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Mr. Mike Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #:			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Downgradient	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

400-179848 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_F_C-Fluoride, SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 2540C - TDS	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	Field Sampling Parameters-Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	D			
MW-06	11/18/19	1605	G	Water			X	X	X	X		
MW-07	11/19/19	0800		Water								
MW-08	11/19/19	1120		Water								
MW-09	11/19/19	0809		Water								
MW-10	11/18/19	1703		Water								
MW-11	11/18/19	1546		Water								
MW-13	11/19/19	0925		Water								
MW-14	11/19/19	0906		Water								
DUP-02	11/19/19	0709		Water								
FB-01	11/19/19	0915		Water								
EB-01	11/19/19	0920	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/19/19 1542	RDH	Kathy R Avery	11-19-19 1542	EFA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.5°C, 4.3°C IR8

Ver: 01/16/2019

1/10/2020

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179848-1
SDG Number: Downgradient

Login Number: 179848
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5°C, 4.3°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-1
SDG: Downgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
North Carolina (WW/SW)	State Program	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-20
Rhode Island	State Program	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179848-2
Laboratory Sample Delivery Group: Downgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Authorized for release by:
12/24/2019 6:27:38 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-179848-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179848-2

RAD

Methods 9315: Radium-226 Prep Batch 160-452091. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-06 (400-179848-1), MW-07 (400-179848-2), MW-08 (400-179848-3), MW-09 (400-179848-4), MW-10 (400-179848-5), MW-11 (400-179848-6), MW-13 (400-179848-7), MW-14 (400-179848-8), DUP-02 (400-179848-9), FB-01 (400-179848-10), EB-01 (400-179848-11), (LCS 160-452091/1-A), (MB 160-452091/22-A), (500-173770-G-2-A) and (500-173770-F-2-A DU)

Method 9315: Radium-226 Prep Batch: 160-452091. The following sample exhibited a negative result greater in magnitude than the 3 sigma TPU: FB-01 (400-179848-10). This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required.

Methods 9320: Radium-228 Prep Batch 160-452099. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-06 (400-179848-1), MW-07 (400-179848-2), MW-08 (400-179848-3), MW-09 (400-179848-4), MW-10 (400-179848-5), MW-11 (400-179848-6), MW-13 (400-179848-7), MW-14 (400-179848-8), DUP-02 (400-179848-9), FB-01 (400-179848-10), EB-01 (400-179848-11), (LCS 160-452099/1-A), (MB 160-452099/22-A), (500-173770-G-2-B) and (500-173770-F-2-B DU)

Method PrecSep_0: Radium 228 Prep Batch 160-452099. The following samples: 400-179848-2, 400-179848-6, and 400-179848-8, have a yellow discoloration: MW-07 (400-179848-2), MW-11 (400-179848-6) and MW-14 (400-179848-8).

Method PrecSep-21: Radium 226 Prep Batch 160-452091. The following samples: 400-179848-2, 400-179848-6, and 400-179848-8, have a yellow discoloration: MW-07 (400-179848-2), MW-11 (400-179848-6) and MW-14 (400-179848-8).

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179848-1	MW-06	Water	11/18/19 16:05	11/19/19 15:42	
400-179848-2	MW-07	Water	11/19/19 08:00	11/19/19 15:42	
400-179848-3	MW-08	Water	11/19/19 11:20	11/19/19 15:42	
400-179848-4	MW-09	Water	11/19/19 08:09	11/19/19 15:42	
400-179848-5	MW-10	Water	11/18/19 17:03	11/19/19 15:42	
400-179848-6	MW-11	Water	11/18/19 15:46	11/19/19 15:42	
400-179848-7	MW-13	Water	11/19/19 09:25	11/19/19 15:42	
400-179848-8	MW-14	Water	11/19/19 09:06	11/19/19 15:42	
400-179848-9	DUP-02	Water	11/19/19 07:09	11/19/19 15:42	
400-179848-10	FB-01	Water	11/19/19 09:15	11/19/19 15:42	
400-179848-11	EB-01	Water	11/19/19 09:20	11/19/19 15:42	

Client Sample ID: MW-06

Date Collected: 11/18/19 16:05
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	9.87		0.507	1.02	1.00	0.106	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	14.9		0.868	1.62	1.00	0.398	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*87.1*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	24.8		1.01	1.91	5.00	0.398	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-07

Date Collected: 11/19/19 08:00
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	35.4		0.939	3.32	1.00	0.0778	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.62		0.645	0.887	1.00	0.502	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*78.1*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	42.0		1.14	3.44	5.00	0.502	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-08

Date Collected: 11/19/19 11:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	11.9		0.570	1.21	1.00	0.122	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	20.1		1.04	2.13	1.00	0.454	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*84.5*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	32.0		1.19	2.45	5.00	0.454	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-09

Date Collected: 11/19/19 08:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	7.46		0.424	0.794	1.00	0.0877	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.41		0.567	0.755	1.00	0.459	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	12.9		0.708	1.10	5.00	0.459	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-10

Date Collected: 11/18/19 17:03
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.69		0.397	0.648	1.00	0.112	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	10.7		0.747	1.23	1.00	0.439	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*86.0*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	16.4		0.846	1.39	5.00	0.439	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-11

Date Collected: 11/18/19 15:46
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	38.5		1.02	3.61	1.00	0.105	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.92		0.687	1.00	1.00	0.433	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*81.5*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	46.4		1.23	3.75	5.00	0.433	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-13

Date Collected: 11/19/19 09:25
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.00		0.393	0.668	1.00	0.107	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.60		0.575	0.772	1.00	0.444	pCi/L	11/26/19 12:51	12/02/19 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*
Y Carrier	*84.9*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	11.6		0.696	1.02	5.00	0.444	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-14

Date Collected: 11/19/19 09:06
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.66		0.225	0.270	1.00	0.138	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.65		0.499	0.555	1.00	0.570	pCi/L	11/26/19 12:51	12/02/19 14:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:46*	*1*
Y Carrier	*78.1*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.31		0.547	0.617	5.00	0.570	pCi/L		12/18/19 13:59	1

Client Sample ID: DUP-02

Date Collected: 11/19/19 07:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	7.11		0.432	0.772	1.00	0.109	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.71		0.607	0.803	1.00	0.551	pCi/L	11/26/19 12:51	12/02/19 14:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:40*	*1*
Y Carrier	*80.4*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	12.8		0.745	1.11	5.00	0.551	pCi/L		12/18/19 13:59	1

Client Sample ID: FB-01

Date Collected: 11/19/19 09:15
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0976	U	0.0381	0.0391	1.00	0.121	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0149	U	0.289	0.289	1.00	0.510	pCi/L	11/26/19 12:51	12/02/19 14:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:40*	*1*
Y Carrier	*78.9*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:40*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0827	U	0.292	0.292	5.00	0.510	pCi/L		12/18/19 13:59	1

Client Sample ID: EB-01

Date Collected: 11/19/19 09:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00715	U	0.0666	0.0666	1.00	0.127	pCi/L	11/26/19 12:16	12/18/19 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*11/26/19 12:16*	*12/18/19 07:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.248	U	0.313	0.314	1.00	0.519	pCi/L	11/26/19 12:51	12/02/19 14:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.255	U	0.320	0.321	5.00	0.519	pCi/L		12/18/19 13:59	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Client Sample ID: MW-06
Date Collected: 11/18/19 16:05
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-07
Date Collected: 11/19/19 08:00
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-08
Date Collected: 11/19/19 11:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-09
Date Collected: 11/19/19 08:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Client Sample ID: MW-10
Date Collected: 11/18/19 17:03
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-11
Date Collected: 11/18/19 15:46
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-13
Date Collected: 11/19/19 09:25
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:45	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-14
Date Collected: 11/19/19 09:06
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452649	12/02/19 14:46	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Client Sample ID: DUP-02
Date Collected: 11/19/19 07:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: FB-01
Date Collected: 11/19/19 09:15
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:40	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: EB-01
Date Collected: 11/19/19 09:20
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179848-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Rad

Prep Batch: 452091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	PrecSep-21	
400-179848-2	MW-07	Total/NA	Water	PrecSep-21	
400-179848-3	MW-08	Total/NA	Water	PrecSep-21	
400-179848-4	MW-09	Total/NA	Water	PrecSep-21	
400-179848-5	MW-10	Total/NA	Water	PrecSep-21	
400-179848-6	MW-11	Total/NA	Water	PrecSep-21	
400-179848-7	MW-13	Total/NA	Water	PrecSep-21	
400-179848-8	MW-14	Total/NA	Water	PrecSep-21	
400-179848-9	DUP-02	Total/NA	Water	PrecSep-21	
400-179848-10	FB-01	Total/NA	Water	PrecSep-21	
400-179848-11	EB-01	Total/NA	Water	PrecSep-21	
MB 160-452091/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-452091/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-173770-F-2-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 452099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179848-1	MW-06	Total/NA	Water	PrecSep_0	
400-179848-2	MW-07	Total/NA	Water	PrecSep_0	
400-179848-3	MW-08	Total/NA	Water	PrecSep_0	
400-179848-4	MW-09	Total/NA	Water	PrecSep_0	
400-179848-5	MW-10	Total/NA	Water	PrecSep_0	
400-179848-6	MW-11	Total/NA	Water	PrecSep_0	
400-179848-7	MW-13	Total/NA	Water	PrecSep_0	
400-179848-8	MW-14	Total/NA	Water	PrecSep_0	
400-179848-9	DUP-02	Total/NA	Water	PrecSep_0	
400-179848-10	FB-01	Total/NA	Water	PrecSep_0	
400-179848-11	EB-01	Total/NA	Water	PrecSep_0	
MB 160-452099/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-452099/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-173770-F-2-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-452091/22-A
Matrix: Water
Analysis Batch: 454500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452091

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.002474	U	0.0609	0.0609	1.00	0.120	pCi/L	11/26/19 12:16	12/18/19 09:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/26/19 12:16*	*12/18/19 09:42*	*1*

Lab Sample ID: LCS 160-452091/1-A
Matrix: Water
Analysis Batch: 454500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452091

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.92		1.12	1.00	0.119	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.4*		*40 - 110*

Lab Sample ID: 500-173770-F-2-A DU
Matrix: Water
Analysis Batch: 454500

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452091

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.387			0.4544		0.129	1.00	0.108	pCi/L			0.27	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-452099/22-A
Matrix: Water
Analysis Batch: 452652

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452099

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.03372	U	0.255	0.255	1.00	0.461	pCi/L	11/26/19 12:51	12/02/19 14:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:49*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:49*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-452099/1-A
Matrix: Water
Analysis Batch: 452649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452099

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.34	9.224		1.11	1.00	0.476	pCi/L	99	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.4*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: 500-173770-F-2-B DU
Matrix: Water
Analysis Batch: 452649

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452099

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.863			0.9927		0.384	1.00	0.526	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*
Y Carrier	*81.5*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

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Client Information	Sampler: Brett Starles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Mr. Mike Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #:			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Downgradient	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

400-179848 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_F_C-Fluoride, SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 2540C - TDS	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	Field Sampling Parameters-Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	D			
MW-06	11/18/19	1605	G	Water			X	X	X	X		
MW-07	11/19/19	0800		Water								
MW-08	11/19/19	1120		Water								
MW-09	11/19/19	0809		Water								
MW-10	11/18/19	1703		Water								
MW-11	11/18/19	1546		Water								
MW-13	11/19/19	0925		Water								
MW-14	11/19/19	0906		Water								
DUP-02	11/19/19	0709		Water								
FB-01	11/19/19	0915		Water								
EB-01	11/19/19	0920	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/19/19 1542	RDH	Kathy R Avery	11-19-19 1542	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.5°C, 4.3°C IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179848-2
SDG Number: Downgradient

Login Number: 179848
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5°C, 4.3°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179848-2
SDG Number: Downgradient

Login Number: 179848
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/22/19 10:58 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	22.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179848-2
SDG: Downgradient

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	12-31-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179851-1
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

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Authorized for release by:
1/10/2020 2:57:07 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-179851-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179851-1

Metals
Method 6020: The post digestion spike % recovery for Calcium associated with batch 400-467875 was outside of control limits. The following sample is impacted: (400-179911-K-3-A PDS ^5).

Method 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-02 (400-179851-1) and MW-03 (400-179851-2). Elevated reporting limits (RLs) are provided.

Method 6020: The method blank for preparation batch 400-473080 and analytical batch 400-473236 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The method blank for preparation batch 400-467032 and analytical batch 400-468800 contained Arsenic and Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The continuing calibration verification (CCV) associated with batch 400-468800 recovered above the upper control limit for Boron, Calcium and Chromium. The method blank associated with this CCV was non-detect for the affected analytes; therefore, the data have been reported. The following sample is impacted: (MB 400-467032/1-A).

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-467033 and analytical batch 400-468043 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-467032 and analytical batch 400-468043 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

General Chemistry
Method SM 2540C: The sample duplicate (DUP) precision for analytical batch 400-466936 was outside control limits. Sample non-homogeneity is suspected.

Methods SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-12 (400-179851-3), (400-179916-A-1), (400-179916-A-1 MS) and (400-179916-A-1 MSD). Elevated reporting limits (RLs) are provided.

Methods SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-467500 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-180385-B-1 MS) and (400-180385-B-1 MSD)

Methods SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-468436 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: (400-180385-B-1), (400-180385-B-1 MS) and (400-180385-B-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: MW-02 — Lab Sample ID: 400-179851-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.036	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	44		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0024	I	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Lithium	0.0032		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.17		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.8	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.59				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-03 — Lab Sample ID: 400-179851-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.021		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.0094	I V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	1.9		0.050	0.025	mg/L	1		6020	Total Recoverable
Lithium	0.011		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	14		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.82				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 400-179851-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.013		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.075		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.015		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	560		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	210		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	6.14				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-179851-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.038		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	40		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample ID: DUP-01 (Continued)

Lab Sample ID: 400-179851-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0023	I	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Lithium	0.0041		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.16		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.6	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.59				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179851-1	MW-02	Water	11/18/19 13:09	11/19/19 15:42	
400-179851-2	MW-03	Water	11/18/19 14:37	11/19/19 15:42	
400-179851-3	MW-12	Water	11/18/19 13:50	11/19/19 15:42	
400-179851-4	DUP-01	Water	11/18/19 12:09	11/19/19 15:42	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: MW-02

Date Collected: 11/18/19 13:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:39	5
Barium	**0.018**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:39	5
Boron	**0.036**	**V**	0.010	0.0036	mg/L		01/06/20 18:50	01/07/20 22:14	1
Calcium	**44**		0.25	0.13	mg/L		11/21/19 23:00	12/04/19 17:08	5
Chromium	**0.0024**	**I**	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:39	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:39	5
Lithium	**0.0032**		0.0010	0.00038	mg/L		11/21/19 23:00	11/30/19 16:37	1
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:39	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**170**		5.0	3.4	mg/L			11/21/19 09:41	1
Chloride	**12**		2.0	1.4	mg/L			11/25/19 22:26	1
Fluoride	**0.17**		0.10	0.032	mg/L			12/03/19 15:55	1
Sulfate	**2.8**	**I**	5.0	1.4	mg/L			12/03/19 10:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.59**				SU			11/18/19 13:09	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: MW-03

Date Collected: 11/18/19 14:37
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 23:44	5
Barium	**0.021**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 23:44	5
Boron	**0.0094**	**I V**	0.010	0.0036	mg/L		01/06/20 18:50	01/07/20 22:19	1
Calcium	**1.9**		0.050	0.025	mg/L		11/21/19 23:00	12/04/19 17:13	1
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 23:44	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 23:44	5
Lithium	**0.011**		0.0010	0.00038	mg/L		11/21/19 23:00	11/30/19 16:47	1
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 23:44	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**52**		5.0	3.4	mg/L			11/21/19 09:41	1
Chloride	**14**		2.0	1.4	mg/L			11/25/19 22:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 15:59	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:50	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.82**				SU			11/18/19 14:37	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: MW-12

Date Collected: 11/18/19 13:50
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 20:47	5
Barium	**0.013**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 20:47	5
Boron	**0.075**		0.010	0.0036	mg/L		11/21/19 23:00	12/05/19 17:05	1
Calcium	**30**		0.25	0.13	mg/L		11/21/19 23:00	11/30/19 15:16	5
Chromium	0.0010	U	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 20:47	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 20:47	5
Lithium	**0.015**		0.0010	0.00038	mg/L		11/21/19 23:00	11/29/19 18:13	1
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 20:47	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**560**		10	6.8	mg/L			11/21/19 13:17	1
Chloride	**210**		40	28	mg/L			11/25/19 22:46	20
Fluoride	**0.14**		0.10	0.032	mg/L			12/03/19 16:03	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.14**				SU			11/18/19 13:50	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: DUP-01
Date Collected: 11/18/19 12:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-4
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/21/19 23:00	11/27/19 21:02	5
Barium	**0.018**		0.0025	0.00070	mg/L		11/21/19 23:00	11/27/19 21:02	5
Boron	**0.038**		0.010	0.0036	mg/L		11/21/19 23:00	12/05/19 17:10	1
Calcium	**40**		0.25	0.13	mg/L		11/21/19 23:00	11/30/19 15:26	5
Chromium	**0.0023**	**I**	0.0025	0.0010	mg/L		11/21/19 23:00	11/27/19 21:02	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/21/19 23:00	11/27/19 21:02	5
Lithium	**0.0041**		0.0010	0.00038	mg/L		11/21/19 23:00	11/29/19 18:18	1
Molybdenum	0.0045	U	0.015	0.0045	mg/L		11/21/19 23:00	11/27/19 21:02	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**190**		5.0	3.4	mg/L			11/21/19 13:17	1
Chloride	**12**		2.0	1.4	mg/L			11/25/19 22:26	1
Fluoride	**0.16**		0.10	0.032	mg/L			12/03/19 16:06	1
Sulfate	**2.6**	**I**	5.0	1.4	mg/L			12/03/19 10:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.59**				SU			11/18/19 12:09	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: MW-02
Date Collected: 11/18/19 13:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:39	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 16:37	LDC	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	468800	12/04/19 17:08	AC	TAL PEN
Total Recoverable	Prep	3005A			473080	01/06/20 18:50	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473236	01/07/20 22:14	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	466894	11/21/19 09:41	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 15:55	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:50	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 13:09	EHS	TAL PEN

Client Sample ID: MW-03
Date Collected: 11/18/19 14:37
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 23:44	AW	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 16:47	LDC	TAL PEN
Total Recoverable	Prep	3005A			467033	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468800	12/04/19 17:13	AC	TAL PEN
Total Recoverable	Prep	3005A			473080	01/06/20 18:50	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473236	01/07/20 22:19	LDC	TAL PEN
Total/NA	Analysis	SM 2540C		1	466894	11/21/19 09:41	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 15:59	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:50	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 14:37	EHS	TAL PEN

Client Sample ID: MW-12
Date Collected: 11/18/19 13:50
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 20:47	AW	TAL PEN
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468043	11/29/19 18:13	AW	TAL PEN
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	468179	11/30/19 15:16	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Client Sample ID: MW-12
Date Collected: 11/18/19 13:50
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468995	12/05/19 17:05	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	467500	11/25/19 22:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:03	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 13:50	EHS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 11/18/19 12:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467875	11/27/19 21:02	AW	TAL PEN
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468043	11/29/19 18:18	AW	TAL PEN
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		5	468179	11/30/19 15:26	LDC	TAL PEN
Total Recoverable	Prep	3005A			467032	11/21/19 23:00	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468995	12/05/19 17:10	AW	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:06	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	471124	11/18/19 12:09	EHS	TAL PEN

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

Metals

Prep Batch: 467032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-3	MW-12	Total Recoverable	Water	3005A	
400-179851-4	DUP-01	Total Recoverable	Water	3005A	
MB 400-467032/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-467032/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179911-K-3-B MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179911-K-3-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 467033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total Recoverable	Water	3005A	
400-179851-2	MW-03	Total Recoverable	Water	3005A	
MB 400-467033/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-467033/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179825-K-5-B MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179825-K-5-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 467875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total Recoverable	Water	6020	467033
400-179851-2	MW-03	Total Recoverable	Water	6020	467033
400-179851-3	MW-12	Total Recoverable	Water	6020	467032
400-179851-4	DUP-01	Total Recoverable	Water	6020	467032

Analysis Batch: 468043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-3	MW-12	Total Recoverable	Water	6020	467032
400-179851-4	DUP-01	Total Recoverable	Water	6020	467032
MB 400-467033/1-A	Method Blank	Total Recoverable	Water	6020	467033
400-179825-K-5-B MS	Matrix Spike	Total Recoverable	Water	6020	467033
400-179825-K-5-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467033
400-179911-K-3-B MS	Matrix Spike	Total Recoverable	Water	6020	467032
400-179911-K-3-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467032

Analysis Batch: 468179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total Recoverable	Water	6020	467033
400-179851-2	MW-03	Total Recoverable	Water	6020	467033
400-179851-3	MW-12	Total Recoverable	Water	6020	467032
400-179851-4	DUP-01	Total Recoverable	Water	6020	467032

Analysis Batch: 468800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total Recoverable	Water	6020	467033
400-179851-2	MW-03	Total Recoverable	Water	6020	467033
MB 400-467032/1-A	Method Blank	Total Recoverable	Water	6020	467032
LCS 400-467032/2-A	Lab Control Sample	Total Recoverable	Water	6020	467032
LCS 400-467033/2-A	Lab Control Sample	Total Recoverable	Water	6020	467033

Analysis Batch: 468995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-3	MW-12	Total Recoverable	Water	6020	467032

Metals (Continued)

Analysis Batch: 468995 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-4	DUP-01	Total Recoverable	Water	6020	467032

Prep Batch: 473080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total Recoverable	Water	3005A	
400-179851-2	MW-03	Total Recoverable	Water	3005A	
MB 400-473080/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-473080/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179848-B-10-C MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179848-B-10-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 473236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total Recoverable	Water	6020	473080
400-179851-2	MW-03	Total Recoverable	Water	6020	473080
MB 400-473080/1-A	Method Blank	Total Recoverable	Water	6020	473080
LCS 400-473080/2-A	Lab Control Sample	Total Recoverable	Water	6020	473080
400-179848-B-10-C MS	Matrix Spike	Total Recoverable	Water	6020	473080
400-179848-B-10-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	473080

General Chemistry

Analysis Batch: 466894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	SM 2540C	
400-179851-2	MW-03	Total/NA	Water	SM 2540C	
MB 400-466894/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466894/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179851-1 DU	MW-02	Total/NA	Water	SM 2540C	

Analysis Batch: 466936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-3	MW-12	Total/NA	Water	SM 2540C	
400-179851-4	DUP-01	Total/NA	Water	SM 2540C	
MB 400-466936/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466936/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179851-4 DU	DUP-01	Total/NA	Water	SM 2540C	

Analysis Batch: 467500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	SM 4500 Cl- E	
400-179851-2	MW-03	Total/NA	Water	SM 4500 Cl- E	
400-179851-3	MW-12	Total/NA	Water	SM 4500 Cl- E	
400-179851-4	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-467500/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-467500/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-467500/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179916-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179916-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

General Chemistry

Analysis Batch: 468436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	SM 4500 SO4 E	
400-179851-2	MW-03	Total/NA	Water	SM 4500 SO4 E	
400-179851-3	MW-12	Total/NA	Water	SM 4500 SO4 E	
400-179851-4	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-468436/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-468436/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-468436/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-180385-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-180385-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 468526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	SM 4500 F C	
400-179851-2	MW-03	Total/NA	Water	SM 4500 F C	
400-179851-3	MW-12	Total/NA	Water	SM 4500 F C	
400-179851-4	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-468526/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-468526/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 471124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	Field Sampling	
400-179851-2	MW-03	Total/NA	Water	Field Sampling	
400-179851-3	MW-12	Total/NA	Water	Field Sampling	
400-179851-4	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-467032/1-A
Matrix: Water
Analysis Batch: 468800

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 467032

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000123	I	0.00025	0.000078	mg/L		11/21/19 23:00	12/04/19 14:23	1
Barium	0.00014	U	0.00050	0.00014	mg/L		11/21/19 23:00	12/04/19 14:23	1
Boron	0.00460	I	0.010	0.0036	mg/L		11/21/19 23:00	12/04/19 14:23	1
Calcium	0.025	U	0.050	0.025	mg/L		11/21/19 23:00	12/04/19 14:23	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/21/19 23:00	12/04/19 14:23	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/21/19 23:00	12/04/19 14:23	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/21/19 23:00	12/04/19 14:23	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/21/19 23:00	12/04/19 14:23	1

Lab Sample ID: LCS 400-467032/2-A
Matrix: Water
Analysis Batch: 468800

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 467032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0488		mg/L		98	80 - 120
Boron	0.100	0.0938		mg/L		94	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0528		mg/L		106	80 - 120
Lead	0.0500	0.0510		mg/L		102	80 - 120
Lithium	0.0500	0.0510		mg/L		102	80 - 120
Molybdenum	0.0500	0.0530		mg/L		106	80 - 120

Lab Sample ID: 400-179911-K-3-B MS
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467032

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic			0.0500	0.0498		mg/L			
Barium			0.0500	0.0611		mg/L			
Chromium			0.0500	0.0525		mg/L			
Lead			0.0500	0.0455		mg/L			
Lithium			0.0500	0.151		mg/L			
Molybdenum			0.0500	0.0614		mg/L			

Lab Sample ID: 400-179911-K-3-C MSD
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467032

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			0.0500	0.0496		mg/L					
Barium			0.0500	0.0604		mg/L					
Chromium			0.0500	0.0527		mg/L					
Lead			0.0500	0.0453		mg/L					
Lithium			0.0500	0.150		mg/L					
Molybdenum			0.0500	0.0618		mg/L					

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

Lab Sample ID: MB 400-467033/1-A
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/21/19 23:00	11/29/19 18:33	1
Barium	0.00014	U	0.00050	0.00014	mg/L		11/21/19 23:00	11/29/19 18:33	1
Calcium	0.025	U	0.050	0.025	mg/L		11/21/19 23:00	11/29/19 18:33	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/21/19 23:00	11/29/19 18:33	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/21/19 23:00	11/29/19 18:33	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/21/19 23:00	11/29/19 18:33	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/21/19 23:00	11/29/19 18:33	1

Lab Sample ID: LCS 400-467033/2-A
Matrix: Water
Analysis Batch: 468800

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0474		mg/L		95	80 - 120
Boron	0.100	0.113		mg/L		113	80 - 120
Calcium	5.00	5.01		mg/L		100	80 - 120
Chromium	0.0500	0.0532		mg/L		106	80 - 120
Lead	0.0500	0.0501		mg/L		100	80 - 120
Lithium	0.0500	0.0504		mg/L		101	80 - 120
Molybdenum	0.0500	0.0519		mg/L		104	80 - 120

Lab Sample ID: 400-179825-K-5-B MS
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0013		0.0500	0.0506		mg/L		98	75 - 125
Barium	0.30		0.0500	0.355		mg/L		109	75 - 125
Chromium	0.00020	U	0.0500	0.0509		mg/L		102	75 - 125
Lead	0.000099	I	0.0500	0.0478		mg/L		95	75 - 125
Lithium	0.015		0.0500	0.0656		mg/L		102	75 - 125
Molybdenum	0.0014	I	0.0500	0.0544		mg/L		106	75 - 125

Lab Sample ID: 400-179825-K-5-C MSD
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467033

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0013		0.0500	0.0497		mg/L		97	75 - 125	2	20
Barium	0.30		0.0500	0.355		mg/L		110	75 - 125	0	20
Chromium	0.00020	U	0.0500	0.0501		mg/L		100	75 - 125	2	20
Lead	0.000099	I	0.0500	0.0471		mg/L		94	75 - 125	1	20
Lithium	0.015		0.0500	0.0626		mg/L		96	75 - 125	5	20
Molybdenum	0.0014	I	0.0500	0.0538		mg/L		105	75 - 125	1	20

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

Lab Sample ID: MB 400-473080/1-A
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00743	I	0.010	0.0036	mg/L		01/06/20 18:50	01/07/20 21:29	1

Lab Sample ID: LCS 400-473080/2-A
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: 400-179848-B-10-C MS
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.0062	I V	0.100	0.109		mg/L		103	75 - 125

Lab Sample ID: 400-179848-B-10-D MSD
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 473080

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.0062	I V	0.100	0.117		mg/L		111	75 - 125	7	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-466894/1
Matrix: Water
Analysis Batch: 466894

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 09:41	1

Lab Sample ID: LCS 400-466894/2
Matrix: Water
Analysis Batch: 466894

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	302		mg/L		103	78 - 122

Lab Sample ID: 400-179851-1 DU
Matrix: Water
Analysis Batch: 466894

Client Sample ID: MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	170		172		mg/L		1	5

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-466936/1
Matrix: Water
Analysis Batch: 466936

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 13:17	1

Lab Sample ID: LCS 400-466936/2
Matrix: Water
Analysis Batch: 466936

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	356		mg/L		122	78 - 122

Lab Sample ID: 400-179851-4 DU
Matrix: Water
Analysis Batch: 466936

Client Sample ID: DUP-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	190		170	J3	mg/L		9	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-467500/6
Matrix: Water
Analysis Batch: 467500

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/25/19 22:16	1

Lab Sample ID: LCS 400-467500/7
Matrix: Water
Analysis Batch: 467500

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.6		mg/L		109	90 - 110

Lab Sample ID: MRL 400-467500/3
Matrix: Water
Analysis Batch: 467500

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.35	I	mg/L		68	50 - 150

Lab Sample ID: 400-179916-A-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	330		10.0	331	J3	mg/L		-28	73 - 120

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-179916-A-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	330		10.0	328	J3	mg/L		-60	73 - 120	1	8

Lab Sample ID: 400-179973-B-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.6		10.0	17.2		mg/L		116	73 - 120

Lab Sample ID: 400-179973-B-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.6		10.0	16.8		mg/L		113	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-468526/15
Matrix: Water
Analysis Batch: 468526

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 15:12	1

Lab Sample ID: LCS 400-468526/14
Matrix: Water
Analysis Batch: 468526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.20		mg/L		105	90 - 110

Lab Sample ID: 240-122625-F-1 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.26		1.00	1.28		mg/L		102	75 - 125

Lab Sample ID: 240-122625-F-1 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.26		1.00	1.23		mg/L		97	75 - 125	4	4

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-180015-B-3 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.54		1.00	1.44		mg/L		90	75 - 125		

Lab Sample ID: 400-180015-B-3 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.54		1.00	1.53	J3	mg/L		99	75 - 125	6	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-468436/6
Matrix: Water
Analysis Batch: 468436

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:45	1

Lab Sample ID: LCS 400-468436/7
Matrix: Water
Analysis Batch: 468436

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	14.0		mg/L		93	90 - 110		

Lab Sample ID: MRL 400-468436/3
Matrix: Water
Analysis Batch: 468436

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	5.73		mg/L		115	50 - 150		

Lab Sample ID: 400-180385-B-1 MS
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	63		10.0	65.0	J3	mg/L		21	77 - 128		

Lab Sample ID: 400-180385-B-1 MSD
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	63		10.0	64.1	J3	mg/L		13	77 - 128	1	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #:			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Upgradient	SSOW#:			

Analysis Requested

400-179851 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	4500_F_C-Fluoride, SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 2540C - TDS	Field Sampling Parameters-Field pH	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N		D		
MW-02	11/18/19	1309	G	Water			X	X	X	X		
MW-03	↓	1437	↓	Water			↓	↓	↓	↓		
MW-12		1350		Water			↓	↓	↓	↓		
Dup-01	11/18/19	1209	G	Water			X	X	X	X		
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	11/19/19 1542	RDH	Kathy RAvey	11-19-19 1542	EIA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.3c, 2.2c IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179851-1
SDG Number: Upgradient

Login Number: 179851
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3°C, 2.2°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-1
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
North Carolina (WW/SW)	State Program	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-20
Rhode Island	State Program	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179851-2
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/24/2019 6:27:15 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-179851-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179851-2

RAD

Methods 9315: Radium-226 Prep Batch 160-452091. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-02 (400-179851-1), MW-03 (400-179851-2), MW-12 (400-179851-3), DUP-01 (400-179851-4), (LCS 160-452091/1-A), (MB 160-452091/22-A), (500-173770-G-2-A) and (500-173770-F-2-A DU)

Methods 9320: Radium-228 Prep Batch 160-452099. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-02 (400-179851-1), MW-03 (400-179851-2), MW-12 (400-179851-3), DUP-01 (400-179851-4), (LCS 160-452099/1-A), (MB 160-452099/22-A), (500-173770-G-2-B) and (500-173770-F-2-B DU)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179851-1	MW-02	Water	11/18/19 13:09	11/19/19 15:42	
400-179851-2	MW-03	Water	11/18/19 14:37	11/19/19 15:42	
400-179851-3	MW-12	Water	11/18/19 13:50	11/19/19 15:42	
400-179851-4	DUP-01	Water	11/18/19 12:09	11/19/19 15:42	

Client Sample ID: MW-02

Date Collected: 11/18/19 13:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.14**		0.176	0.203	1.00	0.0986	pCi/L	11/26/19 12:16	12/18/19 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*40 - 110*	*11/26/19 12:16*	*12/18/19 09:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.169	U	0.271	0.272	1.00	0.457	pCi/L	11/26/19 12:51	12/02/19 14:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.31**		0.323	0.339	5.00	0.457	pCi/L		12/18/19 13:59	1

Client Sample ID: MW-03

Date Collected: 11/18/19 14:37
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.28**		0.188	0.221	1.00	0.113	pCi/L	11/26/19 12:16	12/18/19 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*40 - 110*	*11/26/19 12:16*	*12/18/19 09:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.235	U	0.292	0.293	1.00	0.484	pCi/L	11/26/19 12:51	12/02/19 14:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*
Y Carrier	*79.3*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.52**		0.347	0.367	5.00	0.484	pCi/L		12/18/19 13:59	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Client Sample ID: MW-12

Date Collected: 11/18/19 13:50
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.89**		0.223	0.280	1.00	0.109	pCi/L	11/26/19 12:16	12/18/19 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*11/26/19 12:16*	*12/18/19 09:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.365	U	0.339	0.341	1.00	0.549	pCi/L	11/26/19 12:51	12/02/19 14:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*
Y Carrier	*74.4*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.25**		0.406	0.441	5.00	0.549	pCi/L		12/18/19 13:59	1

Client Sample ID: DUP-01
Date Collected: 11/18/19 12:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-4
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.15**		0.180	0.207	1.00	0.104	pCi/L	11/26/19 12:16	12/18/19 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.2*		*40 - 110*	*11/26/19 12:16*	*12/18/19 09:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.252	U	0.340	0.341	1.00	0.566	pCi/L	11/26/19 12:51	12/02/19 14:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.2*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*
Y Carrier	*81.5*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.40**		0.385	0.399	5.00	0.566	pCi/L		12/18/19 13:59	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Client Sample ID: MW-02
Date Collected: 11/18/19 13:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 09:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-03
Date Collected: 11/18/19 14:37
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 09:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: MW-12
Date Collected: 11/18/19 13:50
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 09:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Client Sample ID: DUP-01
Date Collected: 11/18/19 12:09
Date Received: 11/19/19 15:42

Lab Sample ID: 400-179851-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452091	11/26/19 12:16	RBR	TAL SL
Total/NA	Analysis	9315		1	454500	12/18/19 09:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452099	11/26/19 12:51	RBR	TAL SL
Total/NA	Analysis	9320		1	452652	12/02/19 14:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454530	12/18/19 13:59	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Rad

Prep Batch: 452091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	PrecSep-21	
400-179851-2	MW-03	Total/NA	Water	PrecSep-21	
400-179851-3	MW-12	Total/NA	Water	PrecSep-21	
400-179851-4	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-452091/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-452091/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-173770-F-2-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 452099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179851-1	MW-02	Total/NA	Water	PrecSep_0	
400-179851-2	MW-03	Total/NA	Water	PrecSep_0	
400-179851-3	MW-12	Total/NA	Water	PrecSep_0	
400-179851-4	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-452099/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-452099/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-173770-F-2-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-452091/22-A
Matrix: Water
Analysis Batch: 454500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452091

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.002474	U	0.0609	0.0609	1.00	0.120	pCi/L	11/26/19 12:16	12/18/19 09:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/26/19 12:16*	*12/18/19 09:42*	*1*

Lab Sample ID: LCS 160-452091/1-A
Matrix: Water
Analysis Batch: 454500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452091

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.92		1.12	1.00	0.119	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.4*		*40 - 110*

Lab Sample ID: 500-173770-F-2-A DU
Matrix: Water
Analysis Batch: 454500

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452091

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.387			0.4544		0.129	1.00	0.108	pCi/L			0.27	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-452099/22-A
Matrix: Water
Analysis Batch: 452652

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452099

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.03372	U	0.255	0.255	1.00	0.461	pCi/L	11/26/19 12:51	12/02/19 14:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:49*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/26/19 12:51*	*12/02/19 14:49*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-452099/1-A
Matrix: Water
Analysis Batch: 452649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452099

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.34	9.224		1.11	1.00	0.476	pCi/L	99	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.4*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: 500-173770-F-2-B DU
Matrix: Water
Analysis Batch: 452649

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452099

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.863			0.9927		0.384	1.00	0.526	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.8*		*40 - 110*
Y Carrier	*81.5*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #:			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant	Project #: 40006609			
Site: Upgradient	SSOW#:			

Analysis Requested

400-179851 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	4500_F_C-Fluoride, SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 2540C - TDS	Field Sampling Parameters-Field pH	6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N		D		
MW-02	11/18/19	1309	G	Water			x	x	x	x		
MW-03	↓	1437	↓	Water			↓	↓	↓	↓		
MW-12	↓	1350	↓	Water			↓	↓	↓	↓		
Dup-01	11/18/19	1209	G	Water			x	x	x	x		
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/19/19 1542	RDH	Kathy RAvey	11-19-19 1542	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.5c, 2.2c IR8

Ver: 01/16/2019

12/24/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179851-2
SDG Number: Upgradient

Login Number: 179851
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3°C, 2.2°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179851-2
SDG Number: Upgradient

Login Number: 179851
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/22/19 10:58 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	22.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-179851-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	12-31-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-180015-1
Laboratory Sample Delivery Group: Delineation Sampling Event
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/31/2019 5:31:29 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-180015-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-180015-1

Metals
Method 6020: The continuing calibration verification (CCV) associated with batch 400-468594 recovered above the upper control limit for Lithium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: PZ-14 (400-180015-3), FB-02 (400-180015-5) and EB-02 (400-180015-6).

Method 6020: The method blank for preparation batch 400-467467 and analytical batch 400-468594 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-467467 and analytical batch 400-468179 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The continuing calibration verification (CCV) associated with batch 400-469126 recovered above the upper control limit for Boron and Calcium. The samples associated with this CCV were over 10x the value for the affected analytes; therefore, the data have been reported. The following samples are impacted: MWI-12A (400-180015-1), PZ-11D (400-180015-2), PZ-14 (400-180015-3) and PZ-13D (400-180015-4).

General Chemistry
Methods SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWI-12A (400-180015-1), PZ-11D (400-180015-2), PZ-14 (400-180015-3), PZ-13D (400-180015-4), (400-179916-A-1), (400-179916-A-1 MS) and (400-179916-A-1 MSD). Elevated reporting limits (RLs) are provided.

Methods SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-467500 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWI-12A (400-180015-1), PZ-11D (400-180015-2), PZ-14 (400-180015-3) and PZ-13D (400-180015-4). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: MWI-12A — Lab Sample ID: 400-180015-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0016		0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.37		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	9.7		0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	160		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0016		0.00050	0.00020	mg/L	1		6020	Total Recoverable
Lead	0.000081	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Lithium	0.011		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Molybdenum	0.0014	I	0.0030	0.00090	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	2700		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1300		60	42	mg/L	30		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	290		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.81				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-11D — Lab Sample ID: 400-180015-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0019		0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.091		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	1.3		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	180		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.0010		0.00050	0.00020	mg/L	1		6020	Total Recoverable
Lithium	0.033		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Molybdenum	0.00097	I	0.0030	0.00090	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	3700		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	1600		80	56	mg/L	40		SM 4500 Cl- E	Total/NA
Fluoride	0.20		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	150		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	6.84				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-14 — Lab Sample ID: 400-180015-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.013		0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.15		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	16		0.50	0.18	mg/L	50		6020	Total Recoverable
Calcium	660		2.5	1.3	mg/L	50		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: PZ-14 (Continued) — Lab Sample ID: 400-180015-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.00087		0.00050	0.00020	mg/L	1		6020	Total Recoverable
Molybdenum	0.0021	I	0.0030	0.00090	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	9200		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	3600		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.54		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	760		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	6.39				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-13D — Lab Sample ID: 400-180015-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0047		0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.056		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	14		1.0	0.36	mg/L	100		6020	Total Recoverable
Calcium	980		2.5	1.3	mg/L	50		6020	Total Recoverable
Chromium	0.00094		0.00050	0.00020	mg/L	1		6020	Total Recoverable
Lithium	0.022		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	11000		130	85	mg/L	1		SM 2540C	Total/NA
Chloride	4300		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Sulfate	820		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.64				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-180015-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00014	I	0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.0048	I	0.010	0.0036	mg/L	1		6020	Total Recoverable

Client Sample ID: EB-02 — Lab Sample ID: 400-180015-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00014	I	0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.0047	I	0.010	0.0036	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-180015-1	MWI-12A	Water	11/19/19 11:04	11/21/19 14:10	
400-180015-2	PZ-11D	Water	11/19/19 12:08	11/21/19 14:10	
400-180015-3	PZ-14	Water	11/19/19 12:40	11/21/19 14:10	
400-180015-4	PZ-13D	Water	11/19/19 13:57	11/21/19 14:10	
400-180015-5	FB-02	Water	11/19/19 12:30	11/21/19 14:10	
400-180015-6	EB-02	Water	11/19/19 12:20	11/21/19 14:10	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: MWI-12A

Date Collected: 11/19/19 11:04
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0016		0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 19:44	1
Barium	0.37		0.00050	0.00014	mg/L		11/25/19 17:45	11/30/19 17:52	1
Boron	9.7		0.50	0.18	mg/L		11/25/19 17:45	12/06/19 20:56	50
Calcium	160		2.5	1.3	mg/L		11/25/19 17:45	12/06/19 20:56	50
Chromium	0.0016		0.00050	0.00020	mg/L		11/25/19 17:45	11/30/19 17:52	1
Lead	0.000081	I	0.00025	0.000058	mg/L		11/25/19 17:45	11/30/19 17:52	1
Lithium	0.011		0.0010	0.00038	mg/L		11/25/19 17:45	12/06/19 20:52	1
Molybdenum	0.0014	I	0.0030	0.00090	mg/L		11/25/19 17:45	12/02/19 19:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2700		25	17	mg/L			11/22/19 14:18	1
Chloride	1300		60	42	mg/L			11/25/19 22:43	30
Fluoride	0.10		0.10	0.032	mg/L			12/03/19 16:10	1
Sulfate	290		50	14	mg/L			11/26/19 21:21	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.81				SU			11/19/19 11:04	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: PZ-11D

Date Collected: 11/19/19 12:08
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 19:54	1
Barium	0.091		0.00050	0.00014	mg/L		11/25/19 17:45	11/30/19 17:57	1
Boron	1.3		0.050	0.018	mg/L		11/25/19 17:45	12/06/19 21:06	5
Calcium	180		2.5	1.3	mg/L		11/25/19 17:45	12/06/19 21:10	50
Chromium	0.0010		0.00050	0.00020	mg/L		11/25/19 17:45	11/30/19 17:57	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	11/30/19 17:57	1
Lithium	0.033		0.0010	0.00038	mg/L		11/25/19 17:45	12/06/19 21:01	1
Molybdenum	0.00097	I	0.0030	0.00090	mg/L		11/25/19 17:45	12/02/19 19:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:40	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3700		50	34	mg/L			11/22/19 14:18	1
Chloride	1600		80	56	mg/L			11/25/19 22:46	40
Fluoride	0.20		0.10	0.032	mg/L			12/03/19 16:14	1
Sulfate	150		25	7.0	mg/L			11/26/19 21:21	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.84				SU			11/19/19 12:08	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: PZ-14

Date Collected: 11/19/19 12:40
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.013**		0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 20:04	1
Barium	**0.15**		0.00050	0.00014	mg/L		11/25/19 17:45	11/30/19 18:02	1
Boron	**16**		0.50	0.18	mg/L		11/25/19 17:45	12/06/19 21:15	50
Calcium	**660**		2.5	1.3	mg/L		11/25/19 17:45	12/06/19 21:15	50
Chromium	**0.00087**		0.00050	0.00020	mg/L		11/25/19 17:45	11/30/19 18:02	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	11/30/19 18:02	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/25/19 17:45	12/04/19 01:43	1
Molybdenum	**0.0021**	**I**	0.0030	0.00090	mg/L		11/25/19 17:45	12/02/19 20:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:42	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9200**		130	85	mg/L			11/22/19 14:18	1
Chloride	**3600**		200	140	mg/L			11/25/19 23:07	100
Fluoride	**0.54**		0.10	0.032	mg/L			12/03/19 16:25	1
Sulfate	**760**		150	42	mg/L			11/26/19 21:54	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.39**				SU			11/19/19 12:40	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: PZ-13D

Date Collected: 11/19/19 13:57
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0047**		0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 20:14	1
Barium	**0.056**		0.00050	0.00014	mg/L		11/25/19 17:45	11/30/19 18:07	1
Boron	**14**		1.0	0.36	mg/L		11/25/19 17:45	12/09/19 19:21	100
Calcium	**980**		2.5	1.3	mg/L		11/25/19 17:45	12/06/19 21:25	50
Chromium	**0.00094**		0.00050	0.00020	mg/L		11/25/19 17:45	11/30/19 18:07	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	11/30/19 18:07	1
Lithium	**0.022**		0.0010	0.00038	mg/L		11/25/19 17:45	12/05/19 23:30	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/25/19 17:45	12/02/19 20:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**11000**		130	85	mg/L			11/22/19 14:18	1
Chloride	**4300**		200	140	mg/L			11/25/19 23:07	100
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 16:34	1
Sulfate	**820**		150	42	mg/L			11/26/19 21:54	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.64**				SU			11/19/19 13:57	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: FB-02

Date Collected: 11/19/19 12:30
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 20:34	1
Barium	**0.00014**	**I**	0.00050	0.00014	mg/L		11/25/19 17:45	11/30/19 18:12	1
Boron	**0.0048**	**I**	0.010	0.0036	mg/L		11/25/19 17:45	12/10/19 15:48	1
Calcium	0.025	U	0.050	0.025	mg/L		11/25/19 17:45	12/02/19 20:34	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/25/19 17:45	11/30/19 18:12	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	11/30/19 18:12	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/25/19 17:45	12/04/19 02:23	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/25/19 17:45	12/02/19 20:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:46	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/22/19 14:18	1
Chloride	1.4	U	2.0	1.4	mg/L			11/25/19 22:19	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 16:38	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/26/19 21:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: EB-02

Date Collected: 11/19/19 12:20
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 20:39	1
Barium	**0.00014**	**I**	0.00050	0.00014	mg/L		11/25/19 17:45	11/30/19 18:17	1
Boron	**0.0047**	**I**	0.010	0.0036	mg/L		11/25/19 17:45	12/10/19 15:53	1
Calcium	0.025	U	0.050	0.025	mg/L		11/25/19 17:45	12/02/19 20:39	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/25/19 17:45	11/30/19 18:17	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	11/30/19 18:17	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/25/19 17:45	12/04/19 02:28	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/25/19 17:45	12/02/19 20:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/22/19 14:18	1
Chloride	1.4	U	2.0	1.4	mg/L			11/25/19 22:19	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 16:42	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/26/19 21:00	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: MWI-12A
Date Collected: 11/19/19 11:04
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 17:52	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 19:44	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	469126	12/06/19 20:52	AC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		50	469126	12/06/19 20:56	AC	TAL PEN
Total/NA	Analysis	SM 2540C		1	467101	11/22/19 14:18	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		30	467500	11/25/19 22:43	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:10	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	467673	11/26/19 21:21	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470913	11/19/19 11:04	EHS	TAL PEN

Client Sample ID: PZ-11D
Date Collected: 11/19/19 12:08
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 17:57	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 19:54	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	469126	12/06/19 21:01	AC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	469126	12/06/19 21:06	AC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		50	469126	12/06/19 21:10	AC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	467101	11/22/19 14:18	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		40	467500	11/25/19 22:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:14	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	467673	11/26/19 21:21	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470913	11/19/19 12:08	EHS	TAL PEN

Client Sample ID: PZ-14
Date Collected: 11/19/19 12:40
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 18:02	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: PZ-14
Date Collected: 11/19/19 12:40
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 20:04	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468594	12/04/19 01:43	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		50	469126	12/06/19 21:15	AC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	467101	11/22/19 14:18	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	467500	11/25/19 23:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:25	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	467673	11/26/19 21:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470913	11/19/19 12:40	EHS	TAL PEN

Client Sample ID: PZ-13D
Date Collected: 11/19/19 13:57
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 18:07	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 20:14	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468995	12/05/19 23:30	AW	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		50	469126	12/06/19 21:25	AC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		100	469389	12/09/19 19:21	LDC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	467101	11/22/19 14:18	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	467500	11/25/19 23:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:34	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	467673	11/26/19 21:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470913	11/19/19 13:57	EHS	TAL PEN

Client Sample ID: FB-02
Date Collected: 11/19/19 12:30
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 18:12	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Client Sample ID: FB-02
Date Collected: 11/19/19 12:30
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 20:34	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468594	12/04/19 02:23	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	469589	12/10/19 15:48	LDC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	467101	11/22/19 14:18	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:19	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:38	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	467673	11/26/19 21:00	RRC	TAL PEN

Client Sample ID: EB-02
Date Collected: 11/19/19 12:20
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468179	11/30/19 18:17	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 20:39	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468594	12/04/19 02:28	LDC	TAL PEN
Total Recoverable	Prep	3005A			467467	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	469589	12/10/19 15:53	LDC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	467101	11/22/19 14:18	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:19	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:42	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	467673	11/26/19 21:00	RRC	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 467467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total Recoverable	Water	3005A	
400-180015-2	PZ-11D	Total Recoverable	Water	3005A	
400-180015-3	PZ-14	Total Recoverable	Water	3005A	
400-180015-4	PZ-13D	Total Recoverable	Water	3005A	
400-180015-5	FB-02	Total Recoverable	Water	3005A	
400-180015-6	EB-02	Total Recoverable	Water	3005A	
MB 400-467467/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-467467/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179961-G-1-C MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179961-G-1-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 467720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-2	PZ-11D	Total/NA	Water	7470A	
400-180015-3	PZ-14	Total/NA	Water	7470A	
400-180015-4	PZ-13D	Total/NA	Water	7470A	
400-180015-5	FB-02	Total/NA	Water	7470A	
400-180015-6	EB-02	Total/NA	Water	7470A	
MB 400-467720/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-467720/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179960-I-2-D MS	Matrix Spike	Total/NA	Water	7470A	
400-179960-I-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 468179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total Recoverable	Water	6020	467467
400-180015-2	PZ-11D	Total Recoverable	Water	6020	467467
400-180015-3	PZ-14	Total Recoverable	Water	6020	467467
400-180015-4	PZ-13D	Total Recoverable	Water	6020	467467
400-180015-5	FB-02	Total Recoverable	Water	6020	467467
400-180015-6	EB-02	Total Recoverable	Water	6020	467467
400-179961-G-1-C MS	Matrix Spike	Total Recoverable	Water	6020	467467
400-179961-G-1-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467467

Analysis Batch: 468250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-2	PZ-11D	Total/NA	Water	7470A	467720
400-180015-3	PZ-14	Total/NA	Water	7470A	467720
400-180015-4	PZ-13D	Total/NA	Water	7470A	467720
400-180015-5	FB-02	Total/NA	Water	7470A	467720
400-180015-6	EB-02	Total/NA	Water	7470A	467720
MB 400-467720/14-A	Method Blank	Total/NA	Water	7470A	467720
LCS 400-467720/15-A	Lab Control Sample	Total/NA	Water	7470A	467720
400-179960-I-2-D MS	Matrix Spike	Total/NA	Water	7470A	467720
400-179960-I-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	467720

Analysis Batch: 468366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total Recoverable	Water	6020	467467
400-180015-2	PZ-11D	Total Recoverable	Water	6020	467467
400-180015-3	PZ-14	Total Recoverable	Water	6020	467467

Metals (Continued)

Analysis Batch: 468366 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-4	PZ-13D	Total Recoverable	Water	6020	467467
400-180015-5	FB-02	Total Recoverable	Water	6020	467467
400-180015-6	EB-02	Total Recoverable	Water	6020	467467

Analysis Batch: 468594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-3	PZ-14	Total Recoverable	Water	6020	467467
400-180015-5	FB-02	Total Recoverable	Water	6020	467467
400-180015-6	EB-02	Total Recoverable	Water	6020	467467
MB 400-467467/1-A	Method Blank	Total Recoverable	Water	6020	467467
LCS 400-467467/2-A	Lab Control Sample	Total Recoverable	Water	6020	467467

Analysis Batch: 468995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-4	PZ-13D	Total Recoverable	Water	6020	467467

Analysis Batch: 469126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total Recoverable	Water	6020	467467
400-180015-1	MWI-12A	Total Recoverable	Water	6020	467467
400-180015-2	PZ-11D	Total Recoverable	Water	6020	467467
400-180015-2	PZ-11D	Total Recoverable	Water	6020	467467
400-180015-2	PZ-11D	Total Recoverable	Water	6020	467467
400-180015-3	PZ-14	Total Recoverable	Water	6020	467467
400-180015-4	PZ-13D	Total Recoverable	Water	6020	467467

Analysis Batch: 469389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-4	PZ-13D	Total Recoverable	Water	6020	467467

Analysis Batch: 469589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-5	FB-02	Total Recoverable	Water	6020	467467
400-180015-6	EB-02	Total Recoverable	Water	6020	467467

General Chemistry

Analysis Batch: 467101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	SM 2540C	
400-180015-2	PZ-11D	Total/NA	Water	SM 2540C	
400-180015-3	PZ-14	Total/NA	Water	SM 2540C	
400-180015-4	PZ-13D	Total/NA	Water	SM 2540C	
400-180015-5	FB-02	Total/NA	Water	SM 2540C	
400-180015-6	EB-02	Total/NA	Water	SM 2540C	
MB 400-467101/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-467101/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179973-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 467500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	SM 4500 Cl- E	
400-180015-2	PZ-11D	Total/NA	Water	SM 4500 Cl- E	
400-180015-3	PZ-14	Total/NA	Water	SM 4500 Cl- E	
400-180015-4	PZ-13D	Total/NA	Water	SM 4500 Cl- E	
400-180015-5	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-180015-6	EB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-467500/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-467500/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-467500/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179916-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179916-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 467673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	SM 4500 SO4 E	
400-180015-2	PZ-11D	Total/NA	Water	SM 4500 SO4 E	
400-180015-3	PZ-14	Total/NA	Water	SM 4500 SO4 E	
400-180015-4	PZ-13D	Total/NA	Water	SM 4500 SO4 E	
400-180015-5	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-180015-6	EB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-467673/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-467673/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-467673/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-179923-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-179923-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 468526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	SM 4500 F C	
400-180015-2	PZ-11D	Total/NA	Water	SM 4500 F C	
400-180015-3	PZ-14	Total/NA	Water	SM 4500 F C	
400-180015-4	PZ-13D	Total/NA	Water	SM 4500 F C	
400-180015-5	FB-02	Total/NA	Water	SM 4500 F C	
400-180015-6	EB-02	Total/NA	Water	SM 4500 F C	
MB 400-468526/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-468526/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-180015-3 MS	PZ-14	Total/NA	Water	SM 4500 F C	
400-180015-3 MSD	PZ-14	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 470913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	Field Sampling	
400-180015-2	PZ-11D	Total/NA	Water	Field Sampling	
400-180015-3	PZ-14	Total/NA	Water	Field Sampling	
400-180015-4	PZ-13D	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-467467/1-A
Matrix: Water
Analysis Batch: 468594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 467467

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/25/19 17:45	12/04/19 01:03	1
Barium	0.000156	I	0.00050	0.00014	mg/L		11/25/19 17:45	12/04/19 01:03	1
Boron	0.0036	U	0.010	0.0036	mg/L		11/25/19 17:45	12/04/19 01:03	1
Calcium	0.025	U	0.050	0.025	mg/L		11/25/19 17:45	12/04/19 01:03	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/25/19 17:45	12/04/19 01:03	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	12/04/19 01:03	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/25/19 17:45	12/04/19 01:03	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/25/19 17:45	12/04/19 01:03	1

Lab Sample ID: LCS 400-467467/2-A
Matrix: Water
Analysis Batch: 468594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 467467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0484		mg/L		97	80 - 120
Barium	0.0500	0.0439		mg/L		88	80 - 120
Boron	0.100	0.0880		mg/L		88	80 - 120
Calcium	5.00	5.78		mg/L		116	80 - 120
Chromium	0.0500	0.0589		mg/L		118	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0517		mg/L		103	80 - 120
Molybdenum	0.0500	0.0506		mg/L		101	80 - 120

Lab Sample ID: 400-179961-G-1-C MS
Matrix: Water
Analysis Batch: 468179

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0045		0.0500	0.0471		mg/L		85	75 - 125
Barium	2.7	L	0.0500	2.76	L J3	mg/L		196	75 - 125
Boron	0.045		0.100	0.140		mg/L		95	75 - 125
Calcium	260	L J3	5.00	260	L J3	mg/L		32	75 - 125
Chromium	0.0033		0.0500	0.0531		mg/L		100	75 - 125
Lead	0.0051		0.0500	0.0533		mg/L		96	75 - 125
Lithium	0.0091		0.0500	0.0545		mg/L		91	75 - 125
Molybdenum	0.0032		0.0500	0.0572		mg/L		108	75 - 125

Lab Sample ID: 400-179961-G-1-D MSD
Matrix: Water
Analysis Batch: 468179

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467467

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0045		0.0500	0.0471		mg/L		85	75 - 125	0	20
Barium	2.7	L	0.0500	2.69	L J3	mg/L		42	75 - 125	3	20
Boron	0.045		0.100	0.131		mg/L		86	75 - 125	7	20
Calcium	260	L J3	5.00	260	L J3	mg/L		49	75 - 125	0	20
Chromium	0.0033		0.0500	0.0521		mg/L		98	75 - 125	2	20
Lead	0.0051		0.0500	0.0524		mg/L		95	75 - 125	2	20
Lithium	0.0091		0.0500	0.0497		mg/L		81	75 - 125	9	20

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

Lab Sample ID: 400-179961-G-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 468179 — **Prep Batch: 467467**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum	0.0032		0.0500	0.0548		mg/L		103	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-467720/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468250 — **Prep Batch: 467720**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:14	1

Lab Sample ID: LCS 400-467720/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468250 — **Prep Batch: 467720**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00102		mg/L		101	80 - 120

Lab Sample ID: 400-179960-I-2-D MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468250 — **Prep Batch: 467720**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000085	I	0.00201	0.00202		mg/L		96	80 - 120

Lab Sample ID: 400-179960-I-2-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468250 — **Prep Batch: 467720**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000085	I	0.00201	0.00195		mg/L		93	80 - 120	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-467101/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 467101

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/22/19 09:59	1

Lab Sample ID: LCS 400-467101/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 467101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	356		mg/L		122	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-179973-B-2 DU
Matrix: Water
Analysis Batch: 467101

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	50		52.0		mg/L		4	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-467500/6
Matrix: Water
Analysis Batch: 467500

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/25/19 22:16	1

Lab Sample ID: LCS 400-467500/7
Matrix: Water
Analysis Batch: 467500

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.6		mg/L		109	90 - 110

Lab Sample ID: MRL 400-467500/3
Matrix: Water
Analysis Batch: 467500

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.35	I	mg/L		68	50 - 150

Lab Sample ID: 400-179916-A-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	330		10.0	331	J3	mg/L		-28	73 - 120

Lab Sample ID: 400-179916-A-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	330		10.0	328	J3	mg/L		-60	73 - 120	1	8

Lab Sample ID: 400-179973-B-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.6		10.0	17.2		mg/L		116	73 - 120

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-179973-B-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.6		10.0	16.8		mg/L		113	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-468526/15
Matrix: Water
Analysis Batch: 468526

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 15:12	1

Lab Sample ID: LCS 400-468526/14
Matrix: Water
Analysis Batch: 468526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.20		mg/L		105	90 - 110

Lab Sample ID: 240-122625-F-1 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.26		1.00	1.28		mg/L		102	75 - 125

Lab Sample ID: 240-122625-F-1 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.26		1.00	1.23		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-180015-3 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: PZ-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.54		1.00	1.44		mg/L		90	75 - 125

Lab Sample ID: 400-180015-3 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: PZ-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.54		1.00	1.53	J3	mg/L		99	75 - 125	6	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-467673/6
Matrix: Water
Analysis Batch: 467673

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			11/26/19 20:53	1

Lab Sample ID: LCS 400-467673/7
Matrix: Water
Analysis Batch: 467673

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	15.9		mg/L		106	90 - 110		

Lab Sample ID: MRL 400-467673/3
Matrix: Water
Analysis Batch: 467673

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	5.62		mg/L		112	50 - 150		

Lab Sample ID: 400-179923-B-1 MS
Matrix: Water
Analysis Batch: 467673

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	9.6		10.0	19.9		mg/L		103	77 - 128		

Lab Sample ID: 400-179923-B-1 MSD
Matrix: Water
Analysis Batch: 467673

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	9.6		10.0	20.5		mg/L		109	77 - 128	3	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

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Client Information	Sampler: Brett Jorles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88334-31203.1
Client Contact: Mr. Mike Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Pay by Credit Card			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant Delineation Sampling Event Desc: CCR Smith I	Project #: 40006609			
Site: Florida	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

400-180015 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020 - 6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Ra226Ra228_GFPC - Radium 226 + Radium 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N	N	D		
MWI-12A	11/19/19	1104	G	Water			X	X	X	X	X	X	X		
PZ-11D	11/19/19	1208		Water											
PZ-14	11/19/19	1240		Water											
PZ-13D	11/19/19	1357		Water											
FB-02	11/19/19	1230		Water											
EB-02	11/19/19	1220	G	Water			X	X	X	X	X	X	X		
				Water											
				Water											

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, ~~II~~, ~~III~~, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/21/19 1410	RDH	Kathy R Avery	11/21/19 1410	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.0, 5.5°C IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-180015-1
SDG Number: Delineation Sampling Event

Login Number: 180015
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, 5.5°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-1
SDG: Delineation Sampling Event

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-180015-2
Laboratory Sample Delivery Group: Delineation Sampling Event
Client Project/Site: CCR Smith Plant

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/31/2019 11:22:57 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-180015-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-180015-2

RAD

Methods 9315: Radium 226 Prep Batch 160-452212. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MWI-12A (400-180015-1), PZ-11D (400-180015-2), PZ-14 (400-180015-3), FB-02 (400-180015-5), EB-02 (400-180015-6), (LCS 160-452212/1-A), (MB 160-452212/20-A), (160-36489-A-1-A) and (160-36489-B-1-A DU)

Method 9315: Ra-226 Prep Batch 160-452673. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-13D (400-180015-4), (LCS 160-452673/1-A), (LCSD 160-452673/2-A) and (MB 160-452673/4-A)

Method 9320: Radium-228 Prep Batch 160-452674. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-13D (400-180015-4), (LCS 160-452674/1-A), (LCSD 160-452674/2-A) and (MB 160-452674/4-A)

Methods 904.0, 9320: Radium-228 Prep Batch 160-452214. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MWI-12A (400-180015-1), PZ-11D (400-180015-2), PZ-14 (400-180015-3), PZ-13D (400-180015-4), FB-02 (400-180015-5), EB-02 (400-180015-6), (LCS 160-452214/1-A), (MB 160-452214/20-A), (160-36489-A-1-B) and (160-36489-B-1-B DU)

Method 9320: Radium-228 Prep Batch: 160-452674. The following sample is set to "Acceptable" in 160-452674: PZ-13D (400-180015-4). This is due to the original count demonstrating within-limits data in Prep Batch 160-452214. See Prep NCM 160-185213.

Method PrecSep_0: Radium 228 Prep Batch 160-452674. Insufficient sample volume was available to perform a sample duplicate for the following sample: PZ-13D (400-180015-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Sample 400-180015-2 had cloudy white discoloration and was reduced due to insufficient volume for re-prep.

Method PrecSep-21: Radium 226 Prep Batch 160-452673. Insufficient sample volume was available to perform a sample duplicate for the following sample: PZ-13D (400-180015-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Sample 400-180015-2 had cloudy white discoloration and was reduced due to insufficient volume for re-prep.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-180015-1	MWI-12A	Water	11/19/19 11:04	11/21/19 14:10	
400-180015-2	PZ-11D	Water	11/19/19 12:08	11/21/19 14:10	
400-180015-3	PZ-14	Water	11/19/19 12:40	11/21/19 14:10	
400-180015-4	PZ-13D	Water	11/19/19 13:57	11/21/19 14:10	
400-180015-5	FB-02	Water	11/19/19 12:30	11/21/19 14:10	
400-180015-6	EB-02	Water	11/19/19 12:20	11/21/19 14:10	

Client Sample ID: MWI-12A

Date Collected: 11/19/19 11:04
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	75.0		1.40	6.89	1.00	0.107	pCi/L	11/27/19 09:12	12/23/19 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	10.5		0.719	1.20	1.00	0.412	pCi/L	11/27/19 09:32	12/06/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*
Y Carrier	*84.5*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	85.5		1.57	6.99	5.00	0.412	pCi/L		12/31/19 09:03	1

Client Sample ID: PZ-11D

Date Collected: 11/19/19 12:08
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	4.93		0.351	0.566	1.00	0.0858	pCi/L	11/27/19 09:12	12/23/19 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.04		0.290	0.306	1.00	0.360	pCi/L	11/27/19 09:32	12/06/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*
Y Carrier	*84.9*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.97		0.455	0.643	5.00	0.360	pCi/L		12/31/19 09:03	1

Client Sample ID: PZ-14

Date Collected: 11/19/19 12:40
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	10.4		0.611	1.12	1.00	0.145	pCi/L	11/27/19 09:12	12/23/19 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.9*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	9.72		0.842	1.23	1.00	0.559	pCi/L	11/27/19 09:32	12/06/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.9*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*
Y Carrier	*84.9*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	20.1		1.04	1.66	5.00	0.559	pCi/L		12/31/19 09:03	1

Client Sample ID: PZ-13D

Date Collected: 11/19/19 13:57
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	5.82		0.451	0.692	1.00	0.133	pCi/L	12/02/19 17:36	12/24/19 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.6*		*40 - 110*	*12/02/19 17:36*	*12/24/19 13:39*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	22.1		1.41	2.48	1.00	0.788	pCi/L	11/27/19 09:32	12/06/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*50.6*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*
Y Carrier	*84.5*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	27.9		1.48	2.57	5.00	0.788	pCi/L		12/31/19 09:03	1

Client Sample ID: FB-02

Date Collected: 11/19/19 12:30
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0902	U	0.0296	0.0307	1.00	0.109	pCi/L	11/27/19 09:12	12/23/19 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0163	U	0.216	0.216	1.00	0.383	pCi/L	11/27/19 09:32	12/06/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*
Y Carrier	*86.7*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0739	U	0.218	0.218	5.00	0.383	pCi/L		12/31/19 09:03	1

Client Sample ID: EB-02

Date Collected: 11/19/19 12:20
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0327	U	0.0506	0.0507	1.00	0.0873	pCi/L	11/27/19 09:12	12/23/19 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0481	U	0.205	0.205	1.00	0.362	pCi/L	11/27/19 09:32	12/06/19 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*
Y Carrier	*86.0*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0808	U	0.211	0.211	5.00	0.362	pCi/L		12/31/19 09:03	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Client Sample ID: MWI-12A
Date Collected: 11/19/19 11:04
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455703	12/31/19 09:03	SMP	TAL SL

Client Sample ID: PZ-11D
Date Collected: 11/19/19 12:08
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455703	12/31/19 09:03	SMP	TAL SL

Client Sample ID: PZ-14
Date Collected: 11/19/19 12:40
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455703	12/31/19 09:03	SMP	TAL SL

Client Sample ID: PZ-13D
Date Collected: 11/19/19 13:57
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452673	12/02/19 17:36	ORM	TAL SL
Total/NA	Analysis	9315		1	455084	12/24/19 13:39	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455703	12/31/19 09:03	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Client Sample ID: FB-02
Date Collected: 11/19/19 12:30
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455703	12/31/19 09:03	SMP	TAL SL

Client Sample ID: EB-02
Date Collected: 11/19/19 12:20
Date Received: 11/21/19 14:10

Lab Sample ID: 400-180015-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:53	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455703	12/31/19 09:03	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Rad

Prep Batch: 452212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	PrecSep-21	
400-180015-2	PZ-11D	Total/NA	Water	PrecSep-21	
400-180015-3	PZ-14	Total/NA	Water	PrecSep-21	
400-180015-5	FB-02	Total/NA	Water	PrecSep-21	
400-180015-6	EB-02	Total/NA	Water	PrecSep-21	
MB 160-452212/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-452212/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-36489-B-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 452214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-1	MWI-12A	Total/NA	Water	PrecSep_0	
400-180015-2	PZ-11D	Total/NA	Water	PrecSep_0	
400-180015-3	PZ-14	Total/NA	Water	PrecSep_0	
400-180015-4	PZ-13D	Total/NA	Water	PrecSep_0	
400-180015-5	FB-02	Total/NA	Water	PrecSep_0	
400-180015-6	EB-02	Total/NA	Water	PrecSep_0	
MB 160-452214/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-452214/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-36489-B-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 452673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180015-4	PZ-13D	Total/NA	Water	PrecSep-21	
MB 160-452673/4-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-452673/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-452673/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-452212/20-A
Matrix: Water
Analysis Batch: 454939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452212

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01737	U	0.0472	0.0473	1.00	0.104	pCi/L	11/27/19 09:12	12/23/19 11:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/27/19 09:12*	*12/23/19 11:47*	*1*

Lab Sample ID: LCS 160-452212/1-A
Matrix: Water
Analysis Batch: 455038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452212

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.63		1.09	1.00	0.112	pCi/L	94	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.0*		*40 - 110*

Lab Sample ID: 160-36489-B-1-A DU
Matrix: Water
Analysis Batch: 454939

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452212

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.150			0.3859		0.133	1.00	0.121	pCi/L			1.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*65.1*		*40 - 110*

Lab Sample ID: MB 160-452673/4-A
Matrix: Water
Analysis Batch: 455084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452673

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02040	U	0.0646	0.0646	1.00	0.139	pCi/L	12/02/19 17:36	12/24/19 13:40	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.1*		*40 - 110*	*12/02/19 17:36*	*12/24/19 13:40*	*1*

Lab Sample ID: LCS 160-452673/1-A
Matrix: Water
Analysis Batch: 455084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452673

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	12.37		1.28	1.00	0.118	pCi/L	82	75 - 125		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-452673/1-A
Matrix: Water
Analysis Batch: 455084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452673

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.5		40 - 110

Lab Sample ID: LCSD 160-452673/2-A
Matrix: Water
Analysis Batch: 455084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 452673

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			15.1	12.55		1.32	1.00	0.148	pCi/L	83	75 - 125	0.07	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	93.8		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-452214/20-A
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452214

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1447	U	0.267	0.268	1.00	0.454	pCi/L	11/27/19 09:32	12/06/19 12:56	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.0		40 - 110	11/27/19 09:32	12/06/19 12:56	1
Y Carrier	83.4		40 - 110	11/27/19 09:32	12/06/19 12:56	1

Lab Sample ID: LCS 160-452214/1-A
Matrix: Water
Analysis Batch: 453313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452214

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.33	9.918		1.14	1.00	0.407	pCi/L	106	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.0		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 160-36489-B-1-B DU
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452214

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.32			1.131		0.437	1.00	0.593	pCi/L			0.23	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 160-36489-B-1-B DU
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452214

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	65.1		40 - 110
Y Carrier	87.9		40 - 110

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Brett Jorles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88334-31203.1
Client Contact: Mr. Mike Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Pay by Credit Card			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Smith Plant Delineation Sampling Event Desc: CCR Smith I	Project #: 40006609			
Site: Florida	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

400-180015 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020 - 6020 - As,Ba,B,Ca,Cr,Pb,Li,Mo	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Ra226Ra228_GFPC - Radium 226 + Radium 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N	N	D		
MWI-12A	11/19/19	1154	G	Water			X	X	X	X	X	X	X		
PZ-11D	11/19/19	1208		Water											
PZ-14	11/19/19	1240		Water											
PZ-13D	11/19/19	1357		Water											
FB-02	11/19/19	1230		Water											
EB-02	11/19/19	1220	G	Water			X	X	X	X	X	X	X		
				Water											
				Water											

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, ~~II~~, ~~III~~, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/21/19 1410	RDH	Kathy R Avery	11/21/19 1410	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.0, 5.5°C IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-180015-2
SDG Number: Delineation Sampling Event

Login Number: 180015
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, 5.5°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-180015-2
SDG Number: Delineation Sampling Event

Login Number: 180015
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/26/19 12:30 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Smith Plant

Job ID: 400-180015-2
SDG: Delineation Sampling Event

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

APPENDIX B

Statistical Analyses – November 2018 Semi-Annual Monitoring

FALL 2018

GROUNDWATER STATISTICAL ANALYSIS

FOR GULF POWER'S

PLANT SMITH

Prepared by:

Groundwater Stats Consulting LLC

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GROUNDWATER STATS CONSULTING

February 12, 2018

Geosyntec Consultants
Attn: Mr. Benjamin K. Amos, Ph.D., P.E.
1255 Roberts Boulevard, Suite 200
Kennesaw, GA 30144

Re: Plant Smith
Statistical Analysis – Fall 2018 Sample Event

Dear Mr. Dorman,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the screening and statistical analysis of background groundwater data for Gulf Power Company's Plant Smith. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Sampling began at Plant Smith for the CCR program in 2016 at each of the groundwater monitoring wells. The monitoring well network, as provided by Geosyntec Consultant, consists of the following:

- **Upgradient wells:** MW-2, MW-3, MW-12
- **Downgradient wells:** MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14.

Data were provided electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The statistical analysis was performed according to the groundwater data screening that was performed in October 2017 by GSC and approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting and primary author of the USEPA Unified Guidance.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS;
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium.

Time series plots for Appendix III and IV parameters at all wells are provided for these wells for the above constituents. Additionally, box plots are included for these constituents at all wells. The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

Proposed background data at all wells were evaluated, and reports submitted, during the October 2017 screening for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided and demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Background - Results of October 2017 Background Screening

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. The results of those findings were submitted with the October 2017 report. A summary of flagged values follows this letter. These values maybe also be seen on the time series graphs as disconnected points and on the data pages in a lighter font.

No suspected outliers were observed in any of the data sets, with the exception of TDS in upgradient well MW-12. When the Tukey box plot method was used to screen this suspected outlier, it was determined that the reported value of 4200 mg/L for TDS in well MW-12 was a statistical outlier and, therefore, was flagged accordingly in the database.

Any values identified as outliers are plotted in a lighter font on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be visually identified, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed one statistically significant decreasing trend for total dissolved solids in well MW-11. This trend was relatively low in magnitude when compared to average concentrations. Therefore, no adjustments were necessary.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified statistically significant spatial variation among upgradient wells at Plant Smith for the following Appendix III parameters: boron, calcium, chloride, pH, and TDS, suggesting consideration of intrawell methods for these parameters. These constituents were further evaluated as described below for the appropriateness of intrawell testing to accommodate the groundwater quality. No statistically significant variation was noted for fluoride or sulfate, making these parameters eligible for interwell methods. A summary table of the ANOVA results was included with the screening report.

Appendix III – Intrawell Method Eligibility Screening

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are conservative (i.e. lower) from a regulatory perspective, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Prior to performing intrawell prediction limits, several steps are required to reasonably demonstrate that downgradient water quality does not have existing impacts from the practices of the facility.

Exploratory data analysis was used as a general comparison of concentrations in downgradient wells for all Appendix III parameters recommended for intrawell analyses to concentrations reported in upgradient wells. Upper tolerance limits are used in conjunction with confidence intervals to determine whether the estimated averages in downgradient wells are higher than observed levels upgradient of the facility. The upper tolerance limits were constructed to represent the extreme upper range of potential background levels at the site.

Either parametric or nonparametric tolerance limits are calculated based on the data characteristics that are described below for prediction limits. Parametric tolerance limits (for normal or transformed-normally distributed data) were constructed with a target of 99% confidence and 95% coverage using pooled upgradient well data for each of the Appendix III parameters recommended for intrawell analyses. For non-normal data, nonparametric tolerance limits are used. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As more data are collected, the background population is better represented, and the confidence and coverage levels increase.

Confidence intervals were constructed on downgradient wells for each of the Appendix III parameters exhibiting significant spatial variation, using the tolerance limits discussed above, to determine intrawell eligibility. Either parametric or nonparametric confidence

intervals were constructed as appropriate. When the entire confidence interval is above the background limit for a given parameter, interwell methods are initially recommended as the statistical method. Note that this screening identifies whether confidence intervals are above a background limit but does not identify the reason for this occurrence. Therefore, only the wells/parameters with confidence intervals which did not exceed background limits are eligible for intrawell prediction limits.

Confidence intervals for the above Appendix III parameters were found to be within their respective background limit for pH in all downgradient wells. The confidence intervals for boron, calcium, chloride, and TDS were above the background standard which precludes using intrawell methods without further evaluation. The results of the upper tolerance limits calculations and confidence interval comparisons were presented in the background screening report.

Based on the above screening, intrawell methods are recommended for pH, and interwell methods are recommended for boron, calcium, chloride, fluoride, sulfate, and TDS. If further evaluation confirms natural variation in groundwater at these downgradient wells, intrawell methods will be considered for these parameters. In cases where downgradient average concentrations are higher than observed concentrations upgradient for a given constituent, an independent study and hydrogeological investigation would be required to identify local geochemical conditions and expected groundwater quality for the region to justify an intrawell approach. Such an assessment is beyond the scope of services provided by Groundwater Stats Consulting. When there is not an obvious explanation for observed concentration differences in downgradient wells relative to reported concentrations in upgradient wells, interwell prediction limits will initially be selected for the statistical method until further evidence shows that concentrations are due to natural variation rather than a result of the facility.

Prediction Limits – Appendix III Parameters

All available data through May 2017 for pH at each well were used to establish intrawell prediction limits based on a 1-of-2 resample plan. Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background.

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all available data from upgradient wells for the same time period for boron, calcium, chloride, fluoride, sulfate, and TDS. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample

from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of an additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, an SSI is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. Interwell prediction limits exceedances were noted for calcium, chloride, sulfate and TDS for all downgradient wells; and the lower intrawell prediction limit exceedance was noted for pH at downgradient well MW-8. The results may be found following this letter in the Prediction Limit Summary Tables.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the interwell case, newer data will be included in background when a minimum of 2 new samples are available. In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points

are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion of data are deselected prior to construction of limits in order to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

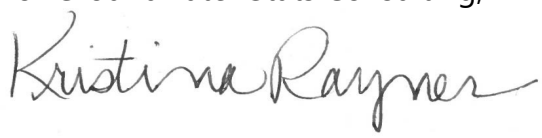
Evaluation of Appendix IV Parameters

Either parametric or nonparametric tolerance limits, as appropriate, were used to calculate background limits from pooled upgradient well data for Appendix IV parameters, with a target of 95% confidence and 95% coverage for parametric limits, to determine the Alternate Contaminant Level (ACL). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These limits were compared to the Maximum Contaminant Levels (MCLs) and CCR rule-specified levels to determine the highest limit for use as the Groundwater Protection Standard (GWPS) in the Confidence Interval comparisons.

Confidence intervals were then constructed on downgradient wells for each of the Appendix IV parameters and compared to the highest limit of either the MCL, rule-specified level, or ACL discussed above. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Tables of the upper tolerance limits, confidence intervals along with graphical comparisons against standards, and significant results (exceedances) follow this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Smith. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,



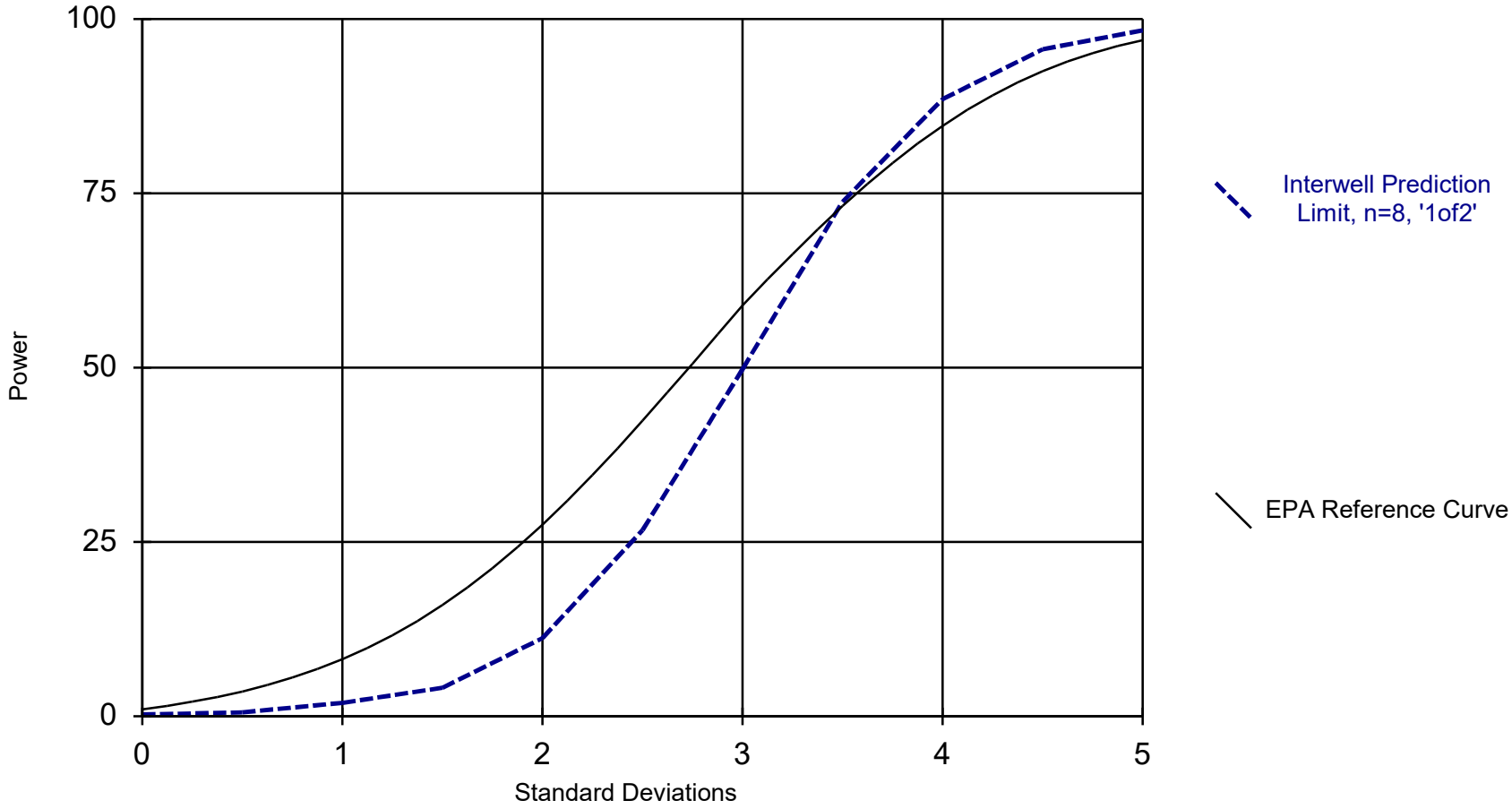
Kristina L. Rayner
Groundwater Statistician

Outlier Summary

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:28 AM

	MW-12 Total Dissolved Solids (mg/L)
6/27/2016	4200 (o)

Power Curve

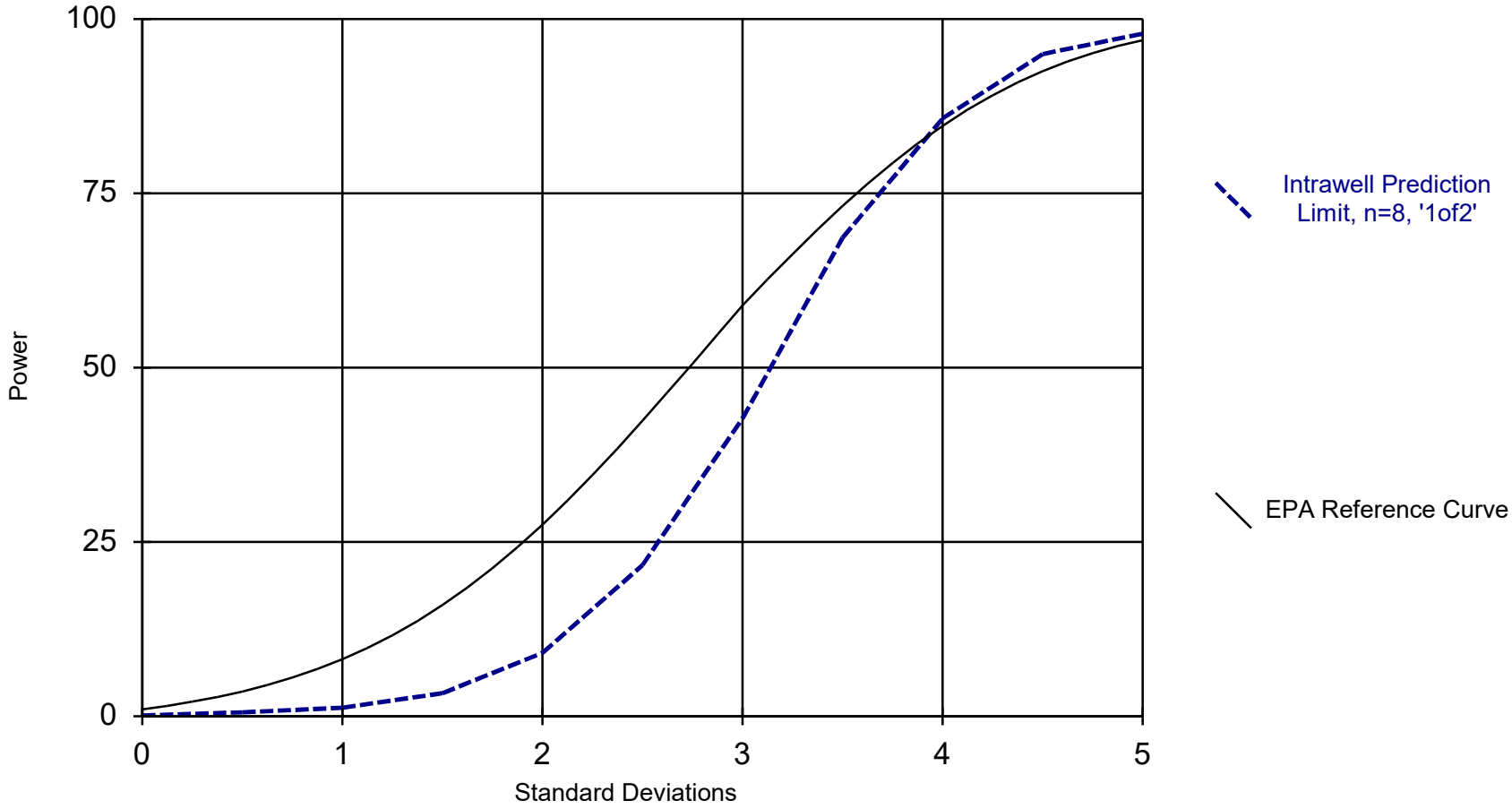


Kappa = 2.894, based on 8 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 2/11/2019 8:41 AM

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Power Curve



Kappa = 3.014, based on 8 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 2/11/2019 8:40 AM

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Interwell Prediction Limit Summary - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 10:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-6	0.33	n/a	11/19/2018	9.5	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-7	0.33	n/a	11/19/2018	3.5	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-8	0.33	n/a	11/19/2018	17	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-9	0.33	n/a	11/20/2018	11	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-10	0.33	n/a	11/20/2018	12	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-11	0.33	n/a	11/20/2018	4.1	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-13	0.33	n/a	11/19/2018	16	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-14	0.33	n/a	11/19/2018	15	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-6	49	n/a	11/19/2018	240	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-7	49	n/a	11/19/2018	380	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-8	49	n/a	11/19/2018	480	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-9	49	n/a	11/20/2018	220	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-10	49	n/a	11/20/2018	440	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-11	49	n/a	11/20/2018	120	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-13	49	n/a	11/19/2018	550	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-14	49	n/a	11/19/2018	290	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-6	230	n/a	11/19/2018	3200	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-7	230	n/a	11/19/2018	3300	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-8	230	n/a	11/19/2018	3600	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-9	230	n/a	11/20/2018	2200	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-10	230	n/a	11/20/2018	2800	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-11	230	n/a	11/20/2018	2400	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-13	230	n/a	11/19/2018	4500	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-14	230	n/a	11/19/2018	2400	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Sulfate (mg/L)	MW-6	7.473	n/a	11/19/2018	520	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-7	7.473	n/a	11/19/2018	910	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-8	7.473	n/a	11/19/2018	960	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-9	7.473	n/a	11/20/2018	580	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-10	7.473	n/a	11/20/2018	830	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-11	7.473	n/a	11/20/2018	250	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-13	7.473	n/a	11/19/2018	810	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-14	7.473	n/a	11/19/2018	720	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-6	540	n/a	11/19/2018	5500	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-7	540	n/a	11/19/2018	6500	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-8	540	n/a	11/19/2018	7300	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-9	540	n/a	11/20/2018	4400	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-10	540	n/a	11/20/2018	6000	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-11	540	n/a	11/20/2018	4100	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-13	540	n/a	11/19/2018	8600	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-14	540	n/a	11/19/2018	4900	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...

Intrawell Prediction Limit Summary - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
pH (SU)	**MW-8**	**5.62**	**3.568**	**11/19/2018**	**3.26**	**Yes**	**8**	**4.594**	**0.3404**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**

Trend Test Summary Table - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:26 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**MW-7**	**0.3396**	**48**	**38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-8**	**-41.13**	**-51**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-9**	**-76.29**	**-53**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-10**	**-57.63**	**-49**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-13**	**-83.7**	**-48**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**MW-9**	**-300.6**	**-50**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-7**	**120.1**	**53**	**38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**MW-11**	**-871.4**	**-46**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**

GWPS - Upper Tolerance Limits

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:10 AM

Constituent	Well	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0025	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0013	33	n/a	n/a	96.97	n/a	n/a	0.184	NP Inter(NDs)
Barium (mg/L)	n/a	0.02992	33	0.01742	0.005712	9.091	None	No	0.05	Inter
Beryllium (mg/L)	n/a	0.0025	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)
Chromium (mg/L)	n/a	0.012	33	n/a	n/a	45.45	n/a	n/a	0.184	NP Inter(normality)
Cobalt (mg/L)	n/a	0.0025	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	3.958	33	2.105	0.8474	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.28	36	n/a	n/a	22.22	n/a	n/a	0.1578	NP Inter(Cohens/xform)
Lead (mg/L)	n/a	0.0013	27	n/a	n/a	92.59	n/a	n/a	0.2503	NP Inter(NDs)
Lithium (mg/L)	n/a	0.025	33	n/a	n/a	18.18	n/a	n/a	0.184	NP Inter(Cohens/xform)
Mercury (mg/L)	n/a	0.0002	27	n/a	n/a	96.3	n/a	n/a	0.2503	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	33	n/a	n/a	93.94	n/a	n/a	0.184	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0013	33	n/a	n/a	90.91	n/a	n/a	0.184	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0005	27	n/a	n/a	100	n/a	n/a	0.2503	NP Inter(NDs)

Confidence Interval Summary Table - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:19 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**MW-11**	**0.02953**	**0.01975**	**0.01**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**34.66**	**23.81**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**27.5**	**19.3**	**5**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**43.33**	**34.98**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**29.59**	**16.88**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**26.44**	**20.29**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**32.95**	**24.18**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**17.55**	**11.43**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.783**	**6.081**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**MW-13**	**0.2398**	**0.1766**	**0.04**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**

Prediction Limits - Interwell

Interwell Prediction Limit Summary - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 10:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-6	0.33	n/a	11/19/2018	9.5	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-7	0.33	n/a	11/19/2018	3.5	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-8	0.33	n/a	11/19/2018	17	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-9	0.33	n/a	11/20/2018	11	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-10	0.33	n/a	11/20/2018	12	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-11	0.33	n/a	11/20/2018	4.1	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-13	0.33	n/a	11/19/2018	16	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Boron (mg/L)	MW-14	0.33	n/a	11/19/2018	15	Yes	36	n/a	n/a	50	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-6	49	n/a	11/19/2018	240	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-7	49	n/a	11/19/2018	380	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-8	49	n/a	11/19/2018	480	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-9	49	n/a	11/20/2018	220	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-10	49	n/a	11/20/2018	440	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-11	49	n/a	11/20/2018	120	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-13	49	n/a	11/19/2018	550	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Calcium (mg/L)	MW-14	49	n/a	11/19/2018	290	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-6	230	n/a	11/19/2018	3200	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-7	230	n/a	11/19/2018	3300	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-8	230	n/a	11/19/2018	3600	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-9	230	n/a	11/20/2018	2200	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-10	230	n/a	11/20/2018	2800	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-11	230	n/a	11/20/2018	2400	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-13	230	n/a	11/19/2018	4500	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Chloride (mg/L)	MW-14	230	n/a	11/19/2018	2400	Yes	36	n/a	n/a	0	n/a	n/a	0.001369	NP Inter (normality) ...
Sulfate (mg/L)	MW-6	7.473	n/a	11/19/2018	520	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-7	7.473	n/a	11/19/2018	910	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-8	7.473	n/a	11/19/2018	960	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-9	7.473	n/a	11/20/2018	580	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-10	7.473	n/a	11/20/2018	830	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-11	7.473	n/a	11/20/2018	250	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-13	7.473	n/a	11/19/2018	810	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-14	7.473	n/a	11/19/2018	720	Yes	36	n/a	n/a	63.89	n/a	n/a	0.001369	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-6	540	n/a	11/19/2018	5500	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-7	540	n/a	11/19/2018	6500	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-8	540	n/a	11/19/2018	7300	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-9	540	n/a	11/20/2018	4400	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-10	540	n/a	11/20/2018	6000	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-11	540	n/a	11/20/2018	4100	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-13	540	n/a	11/19/2018	8600	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-14	540	n/a	11/19/2018	4900	Yes	35	n/a	n/a	0	n/a	n/a	0.001432	NP Inter (normality) ...

Interwell Prediction Limit Summary - All Results

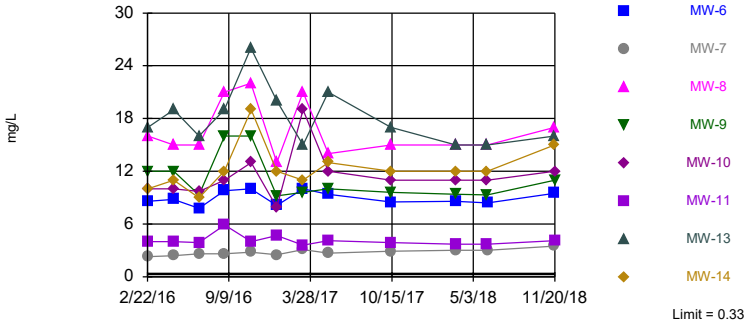
Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 10:46 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	**MW-6**	**0.33**	**n/a**	**11/19/2018**	**9.5**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-7**	**0.33**	**n/a**	**11/19/2018**	**3.5**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-8**	**0.33**	**n/a**	**11/19/2018**	**17**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-9**	**0.33**	**n/a**	**11/20/2018**	**11**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-10**	**0.33**	**n/a**	**11/20/2018**	**12**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-11**	**0.33**	**n/a**	**11/20/2018**	**4.1**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-13**	**0.33**	**n/a**	**11/19/2018**	**16**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Boron (mg/L)	**MW-14**	**0.33**	**n/a**	**11/19/2018**	**15**	**Yes**	**36**	**n/a**	**n/a**	**50**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-6**	**49**	**n/a**	**11/19/2018**	**240**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-7**	**49**	**n/a**	**11/19/2018**	**380**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-8**	**49**	**n/a**	**11/19/2018**	**480**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-9**	**49**	**n/a**	**11/20/2018**	**220**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-10**	**49**	**n/a**	**11/20/2018**	**440**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-11**	**49**	**n/a**	**11/20/2018**	**120**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-13**	**49**	**n/a**	**11/19/2018**	**550**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Calcium (mg/L)	**MW-14**	**49**	**n/a**	**11/19/2018**	**290**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-6**	**230**	**n/a**	**11/19/2018**	**3200**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-7**	**230**	**n/a**	**11/19/2018**	**3300**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-8**	**230**	**n/a**	**11/19/2018**	**3600**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-9**	**230**	**n/a**	**11/20/2018**	**2200**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-10**	**230**	**n/a**	**11/20/2018**	**2800**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-11**	**230**	**n/a**	**11/20/2018**	**2400**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-13**	**230**	**n/a**	**11/19/2018**	**4500**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Chloride (mg/L)	**MW-14**	**230**	**n/a**	**11/19/2018**	**2400**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001369**	**NP Inter (normality) ...**
Fluoride (mg/L)	MW-6	0.2464	n/a	11/19/2018	0.04	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-7	0.2464	n/a	11/19/2018	0.1ND	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-8	0.2464	n/a	11/19/2018	0.1ND	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-9	0.2464	n/a	11/20/2018	0.1ND	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-10	0.2464	n/a	11/20/2018	0.1ND	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-11	0.2464	n/a	11/20/2018	0.1ND	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-13	0.2464	n/a	11/19/2018	0.04	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Fluoride (mg/L)	MW-14	0.2464	n/a	11/19/2018	0.08	No	36	0.4234	0.1002	22.22	Kapla.	x^(1/3)	0.0009403	Param Inter 1 of 2
Sulfate (mg/L)	**MW-6**	**7.473**	**n/a**	**11/19/2018**	**520**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-7**	**7.473**	**n/a**	**11/19/2018**	**910**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-8**	**7.473**	**n/a**	**11/19/2018**	**960**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-9**	**7.473**	**n/a**	**11/20/2018**	**580**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-10**	**7.473**	**n/a**	**11/20/2018**	**830**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-11**	**7.473**	**n/a**	**11/20/2018**	**250**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-13**	**7.473**	**n/a**	**11/19/2018**	**810**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-14**	**7.473**	**n/a**	**11/19/2018**	**720**	**Yes**	**36**	**n/a**	**n/a**	**63.89**	**n/a**	**n/a**	**0.001369**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-6**	**540**	**n/a**	**11/19/2018**	**5500**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-7**	**540**	**n/a**	**11/19/2018**	**6500**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-8**	**540**	**n/a**	**11/19/2018**	**7300**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-9**	**540**	**n/a**	**11/20/2018**	**4400**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-10**	**540**	**n/a**	**11/20/2018**	**6000**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-11**	**540**	**n/a**	**11/20/2018**	**4100**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-13**	**540**	**n/a**	**11/19/2018**	**8600**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-14**	**540**	**n/a**	**11/19/2018**	**4900**	**Yes**	**35**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001432**	**NP Inter (normality) ...**

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 50% NDs. Annual per-constituent alpha = 0.02168. Individual comparison alpha = 0.001369 (1 of 2). Comparing 8 points to limit.

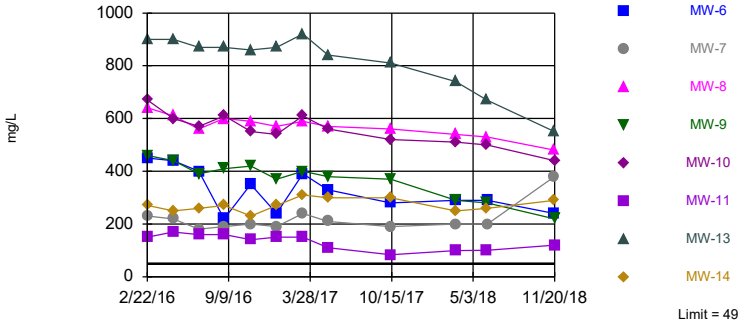
Constituent: Boron Analysis Run 2/8/2019 10:42 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Annual per-constituent alpha = 0.02168. Individual comparison alpha = 0.001369 (1 of 2). Comparing 8 points to limit.

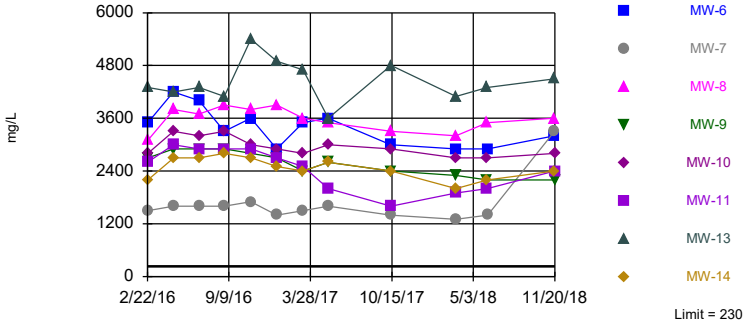
Constituent: Calcium Analysis Run 2/8/2019 10:42 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Annual per-constituent alpha = 0.02168. Individual comparison alpha = 0.001369 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 2/8/2019 10:42 AM View: PL's

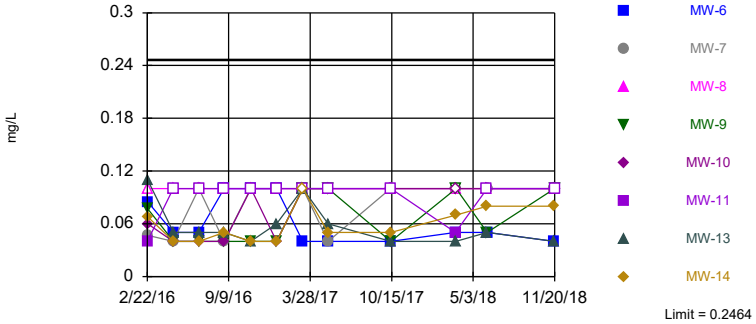
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.4234, Std. Dev.=0.1002, n=36, 22.22% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9146, critical = 0.912. Kappa = 2.031 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009403. Comparing 8 points to limit.

Constituent: Fluoride Analysis Run 2/8/2019 10:42 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-11	MW-3 (bg)	MW-12 (bg)	MW-10	MW-14	MW-6	MW-7	MW-9
2/22/2016	<0.05	4	<0.05	0.14 (J)					
2/23/2016					10	10	8.6	2.3	12
4/25/2016	0.022 (J)		<0.05						
4/26/2016		4		0.27	10		8.8	2.4	
4/27/2016						11			12
6/27/2016	0.032 (J)		<0.05	0.083					
6/28/2016		3.9			9.7	9	7.8	2.6	9.3
8/29/2016	<0.05 (*)		<0.05	<0.05 (*)		12	9.8	2.6	
8/30/2016		5.9			11				16
11/1/2016	<0.05		<0.05	0.1					
11/2/2016							10	2.8	
11/3/2016		4			13	19			16
1/4/2017	<0.05		<0.05	0.062					
1/5/2017		4.7			7.9	12	8.1	2.5	9.2
3/10/2017	0.032 (J)		<0.05	0.06					
3/11/2017		3.6			19	11	10	3.1	9.6
5/11/2017	0.23		0.18	0.33			9.4		
5/12/2017		4.1			12	13		2.7	10
10/12/2017	<0.05		<0.05	0.082			8.5	2.9	
10/13/2017		3.9			11	12			9.6
3/20/2018			<0.05	0.072					
3/21/2018	<0.05	3.7					8.6	3	
3/22/2018					11	12			
3/23/2018									9.4
6/6/2018	0.027 (J)		<0.05	0.077					
6/7/2018		3.7			11	12			9.3
6/8/2018							8.4	3	
11/19/2018	0.045 (J)		<0.05	0.071		15	9.5	3.5	
11/20/2018		4.1			12				11

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-8	MW-13
2/22/2016		
2/23/2016	16	17
4/25/2016		
4/26/2016		
4/27/2016	15	19
6/27/2016		
6/28/2016	15	16
8/29/2016	21	19
8/30/2016		
11/1/2016		
11/2/2016	22	26
11/3/2016		
1/4/2017		
1/5/2017	13	20
3/10/2017		
3/11/2017	21	15
5/11/2017		
5/12/2017	14	21
10/12/2017		
10/13/2017	15	17
3/20/2018		
3/21/2018		
3/22/2018	15	15
3/23/2018		
6/6/2018		
6/7/2018	15	15
6/8/2018		
11/19/2018	17	16
11/20/2018		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-11	MW-3 (bg)	MW-12 (bg)	MW-10	MW-14	MW-6	MW-7	MW-9
2/22/2016	12	150	1.9	23					
2/23/2016					670	270	450	230	460
4/25/2016	11		1.8						
4/26/2016		170		33	600		440	220	
4/27/2016						250			440
6/27/2016	7.7		1.7	29					
6/28/2016		160			570	260	400	180	390
8/29/2016	48		1.7	28		270	220	190	
8/30/2016		160			610				410
11/1/2016	49		1.9	36					
11/2/2016							350	200	
11/3/2016		140			550	230			420
1/4/2017	44		1.8	36					
1/5/2017		150			540	270	240	190	370
3/10/2017	46		1.9	37					
3/11/2017		150			610	310	390	240	400
5/11/2017	43		1.7	31			330		
5/12/2017		110			560	300		210	380
10/12/2017	45		1.9	32			280	190	
10/13/2017		83			520	300			370
3/20/2018			1.9	34					
3/21/2018	45	99					290	200	
3/22/2018					510	250			
3/23/2018									290
6/6/2018	32		1.8	30					
6/7/2018		100			500	260			280
6/8/2018							290	200	
11/19/2018	20		1.8	38		290	240	380	
11/20/2018		120			440				220

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-8	MW-13
2/22/2016		
2/23/2016	640	900
4/25/2016		
4/26/2016		
4/27/2016	610	900
6/27/2016		
6/28/2016	560	870
8/29/2016	600	870
8/30/2016		
11/1/2016		
11/2/2016	590	860
11/3/2016		
1/4/2017		
1/5/2017	570	870
3/10/2017		
3/11/2017	590	920
5/11/2017		
5/12/2017	570	840
10/12/2017		
10/13/2017	560	810
3/20/2018		
3/21/2018		
3/22/2018	540	740
3/23/2018		
6/6/2018		
6/7/2018	530	670
6/8/2018		
11/19/2018	480	550
11/20/2018		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-11	MW-3 (bg)	MW-12 (bg)	MW-10	MW-14	MW-6	MW-7	MW-9
2/22/2016	15	2600	11	140					
2/23/2016					2800	2200	3500	1500	2700
4/25/2016	18		10						
4/26/2016		3000		190	3300		4200	1600	
4/27/2016						2700			2900
6/27/2016	17		11	170					
6/28/2016		2900			3200	2700	4000	1600	2900
8/29/2016	16		11	180		2800	3300	1600	
8/30/2016		2900			3300				2900
11/1/2016	11		11	230					
11/2/2016							3600	1700	
11/3/2016		2900			3000	2700			2800
1/4/2017	11		11	220					
1/5/2017		2700			2900	2500	2900	1400	2700
3/10/2017	14		11	210					
3/11/2017		2500			2800	2400	3500	1500	2400
5/11/2017	11		12	200			3600		
5/12/2017		2000			3000	2600		1600	2600
10/12/2017	12		12	190			3000	1400	
10/13/2017		1600			2900	2400			2400
3/20/2018			11	190					
3/21/2018	9.3	1900					2900	1300	
3/22/2018					2700	2000			
3/23/2018									2300
6/6/2018	13		11	190					
6/7/2018		2000			2700	2200			2200
6/8/2018							2900	1400	
11/19/2018	13		19.9 (D)	210		2400	3200	3300	
11/20/2018		2400			2800				2200

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-8	MW-13
2/22/2016		
2/23/2016	3100	4300
4/25/2016		
4/26/2016		
4/27/2016	3800	4200
6/27/2016		
6/28/2016	3700	4300
8/29/2016	3900	4100
8/30/2016		
11/1/2016		
11/2/2016	3800	5400
11/3/2016		
1/4/2017		
1/5/2017	3900	4900
3/10/2017		
3/11/2017	3600	4700
5/11/2017		
5/12/2017	3500	3600
10/12/2017		
10/13/2017	3300	4800
3/20/2018		
3/21/2018		
3/22/2018	3200	4100
3/23/2018		
6/6/2018		
6/7/2018	3500	4300
6/8/2018		
11/19/2018	3600	4500
11/20/2018		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-11	MW-3 (bg)	MW-12 (bg)	MW-10	MW-14	MW-6	MW-7	MW-9
2/22/2016	0.06 (J)	0.04 (J)	0.04 (J)	0.09 (J)					
2/23/2016					0.06 (J)	0.068 (J)	0.085 (J)	0.047 (J)	0.077 (J)
4/25/2016	0.04 (J)		<0.1						
4/26/2016		<0.1		0.08 (J)	0.04 (J)		0.05 (J)	0.04 (J)	
4/27/2016						0.04 (J)			0.04 (J)
6/27/2016	0.04 (J)		<0.1	0.08 (J)					
6/28/2016		<0.1			0.04 (J)	0.04 (J)	0.05 (J)	<0.1	0.04 (J)
8/29/2016	0.16		0.04 (J)	0.09 (J)		0.05 (J)	<0.1	0.04 (J)	
8/30/2016		<0.1			0.04 (J)				0.04 (J)
11/1/2016	0.17		<0.1	0.08 (J)					
11/2/2016							<0.1	<0.1	
11/3/2016		<0.1			<0.1	0.04 (J)			0.04 (J)
1/4/2017	0.23		<0.1	0.1					
1/5/2017		<0.1			0.04 (J)	0.04 (J)	<0.1	<0.1	0.04 (J)
3/10/2017	0.21		<0.1	0.1					
3/11/2017		<0.1			<0.1	<0.1	0.04 (J)	<0.1	<0.1
5/11/2017	0.23		<0.1	0.1			0.04 (J)		
5/12/2017		<0.1			<0.1	0.05 (J)		0.04 (J)	<0.1
10/12/2017	0.27		<0.1	0.12			0.04	<0.1	
10/13/2017		<0.1			<0.1	0.05			0.04
3/20/2018			<0.1	0.12					
3/21/2018	0.28	0.05 (J)					0.05 (J)	<0.1	
3/22/2018					<0.1	0.07 (J)			
3/23/2018									<0.1
6/6/2018	0.19		0.04 (J)	0.12					
6/7/2018		<0.1			<0.1	0.08 (J)			0.05 (J)
6/8/2018							0.05 (J)	<0.1	
11/19/2018	0.12		0.04 (J)	0.13		0.08 (J)	0.04 (J)	<0.1	
11/20/2018		<0.1			<0.1				<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

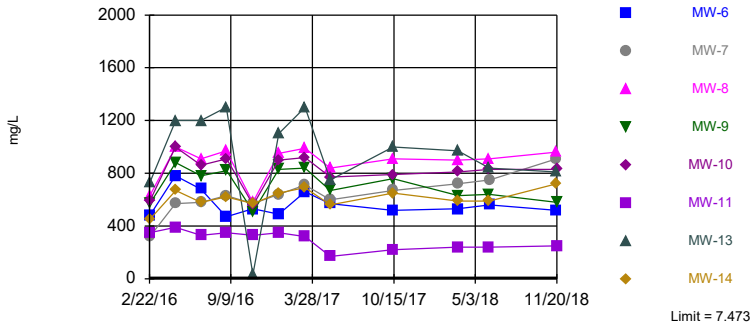
Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-8	MW-13
2/22/2016		
2/23/2016	<0.1	0.11
4/25/2016		
4/26/2016		
4/27/2016	<0.1	0.05 (J)
6/27/2016		
6/28/2016	<0.1	0.05 (J)
8/29/2016	<0.1	0.05 (J)
8/30/2016		
11/1/2016		
11/2/2016	<0.1	0.04 (J)
11/3/2016		
1/4/2017		
1/5/2017	<0.1	0.06 (J)
3/10/2017		
3/11/2017	<0.1	<0.1
5/11/2017		
5/12/2017	<0.1	0.06 (J)
10/12/2017		
10/13/2017	<0.1	0.04
3/20/2018		
3/21/2018		
3/22/2018	<0.1	0.04 (J)
3/23/2018		
6/6/2018		
6/7/2018	<0.1	0.05 (J)
6/8/2018		
11/19/2018	<0.1	0.04 (J)
11/20/2018		

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 63.89% NDs. Annual per-constituent alpha = 0.02168. Individual comparison alpha = 0.001369 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 2/8/2019 10:42 AM View: PL's

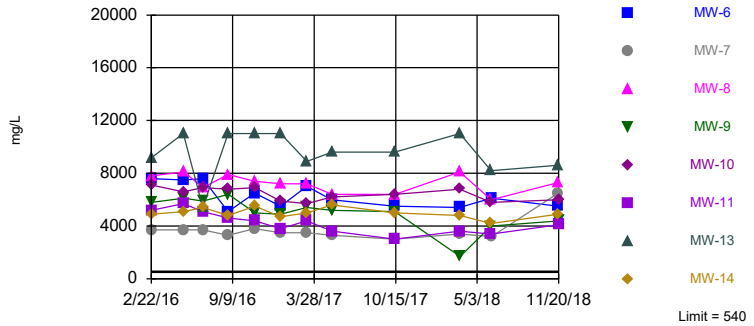
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. Annual per-constituent alpha = 0.02266. Individual comparison alpha = 0.001432 (1 of 2). Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/8/2019 10:42 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-11	MW-3 (bg)	MW-12 (bg)	MW-10	MW-14	MW-6	MW-7	MW-9
2/22/2016	6.3	350	<5	<5					
2/23/2016					590	450	480	320	570
4/25/2016	6.1		1.4 (J)						
4/26/2016		390		<5	1000		780	570	
4/27/2016						670			880
6/27/2016	6.6		<5	1.6 (J)					
6/28/2016		330			860	580	680	580	780
8/29/2016	4.5 (J)		<5	<5		620	470 (J)	630	
8/30/2016		350			910				820
11/1/2016	<5		<5	<5					
11/2/2016							530	570	
11/3/2016		330			560	570			510
1/4/2017	<5 (*)		<5 (*)	<5					
1/5/2017		350			900	650	490	640	830
3/10/2017	2.3 (J)		<5	<5					
3/11/2017		320			920	690	660	710	840
5/11/2017	<5		<5	<5			570		
5/12/2017		170 (J)			770	560		600	670
10/12/2017	<5		<5	<5			520	670	
10/13/2017		220			790	650			760
3/20/2018			<5	1.8 (J)					
3/21/2018	<5	240					530	720	
3/22/2018					810	590			
3/23/2018									630
6/6/2018	4.8 (J)		<5	2.3 (J)					
6/7/2018		240			830	590			640
6/8/2018							560	750	
11/19/2018	4.4 (J)		7.473 (D)	2.2 (J)		720	520	910	
11/20/2018		250			830				580

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-8	MW-13
2/22/2016		
2/23/2016	630	730
4/25/2016		
4/26/2016		
4/27/2016	1000	1200
6/27/2016		
6/28/2016	910	1200
8/29/2016	970	1300
8/30/2016		
11/1/2016		
11/2/2016	580	31
11/3/2016		
1/4/2017		
1/5/2017	950	1100
3/10/2017		
3/11/2017	990	1300
5/11/2017		
5/12/2017	840	750
10/12/2017		
10/13/2017	910	1000
3/20/2018		
3/21/2018		
3/22/2018	900	970
3/23/2018		
6/6/2018		
6/7/2018	910	840
6/8/2018		
11/19/2018	960	810
11/20/2018		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-11	MW-3 (bg)	MW-12 (bg)	MW-10	MW-8	MW-7	MW-9	MW-6
2/22/2016	74	5200	46	410					
2/23/2016					7100	7800	3700	5800	7600
5/11/2016	200	5700	42	410	6600		3700		7500
5/12/2016						8100		6100	
6/27/2016	42		24	4200 (o)					
6/28/2016		5100			6900	6900	3700	5900	7600
8/29/2016	200		42	490		7900	3300		5100
8/30/2016		4600			6800			6400	
11/1/2016	220		64	540					
11/2/2016						7400	3800		6500
11/3/2016		4400			6900			5000	
1/4/2017	140		44	520					
1/5/2017		3800			5900	7200	3500	4900	5500
3/10/2017	160		16	490					
3/11/2017		4400			5700	7200	3500	5400	7000
5/11/2017	190		42	490					6000
5/12/2017		3600			6200	6400	3300	5200	
10/12/2017	150		30	470			3000		5500
10/13/2017		3000			6400	6400		5100	
3/20/2018			12	510					
3/21/2018	150	3600					3400		5400
3/22/2018					6800	8100			
3/23/2018								1700	
6/6/2018	160		46	460					
6/7/2018		3400			5800	6000		4000	
6/8/2018							3200		6100
11/19/2018	88 (D)		22	490		7300	6500		5500
11/20/2018		4100			6000			4400	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/8/2019 10:46 AM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	9200	4900
5/11/2016	11000	
5/12/2016		5100
6/27/2016		
6/28/2016	5400	5400
8/29/2016	11000	4800
8/30/2016		
11/1/2016		
11/2/2016	11000	
11/3/2016		5500
1/4/2017		
1/5/2017	11000	4700
3/10/2017		
3/11/2017	8900	5000
5/11/2017		
5/12/2017	9600	5600
10/12/2017		
10/13/2017	9600	5000
3/20/2018		
3/21/2018		
3/22/2018	11000	4800
3/23/2018		
6/6/2018		
6/7/2018	8200	4200
6/8/2018		
11/19/2018	8600	4900
11/20/2018		

Prediction Limits - Intrawell

Intrawell Prediction Limit Summary - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
pH (SU)	**MW-8**	**5.62**	**3.568**	**11/19/2018**	**3.26**	**Yes**	**8**	**4.594**	**0.3404**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**

Intrawell Prediction Limit Summary - All Results

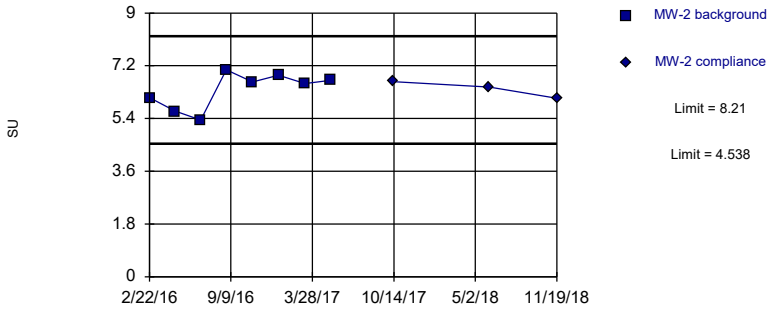
Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
pH (SU)	MW-2	8.21	4.538	11/19/2018	6.09	No	8	6.374	0.6092	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-3	5.354	4.616	11/19/2018	4.95	No	8	4.985	0.1225	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-12	6.28	5.823	11/19/2018	6.11	No	8	6.051	0.07586	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-6	6.253	3.967	11/19/2018	5.26	No	8	5.11	0.3792	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-7	6.575	5.86	11/19/2018	6.15	No	8	6.218	0.1188	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	**MW-8**	**5.62**	**3.568**	**11/19/2018**	**3.26**	**Yes**	**8**	**4.594**	**0.3404**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**
pH (SU)	MW-9	6.725	4.202	11/20/2018	6.52	No	8	5.464	0.4185	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-10	5.468	4.964	11/20/2018	5.18	No	8	5.216	0.08366	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-11	7.003	5.977	11/20/2018	6.35	No	8	6.49	0.1702	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-13	7.628	6.58	11/19/2018	6.99	No	8	7.104	0.1739	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-14	6.9	6.62	11/19/2018	6.86	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) ...

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.374, Std. Dev.=0.6092, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9013, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

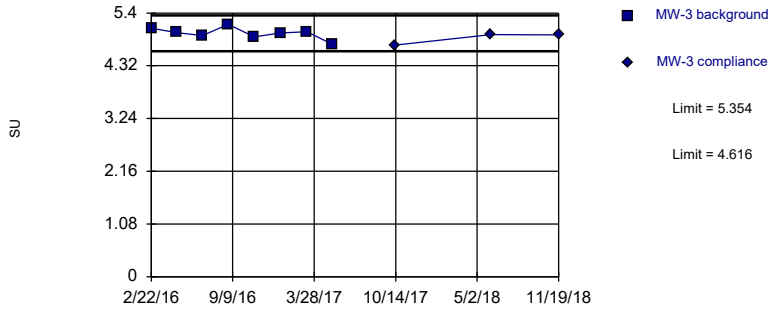
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.985, Std. Dev.=0.1225, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9727, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

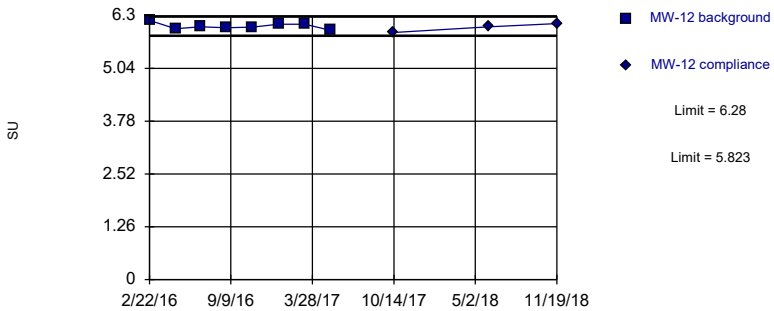
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.051, Std. Dev.=0.07586, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9565, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

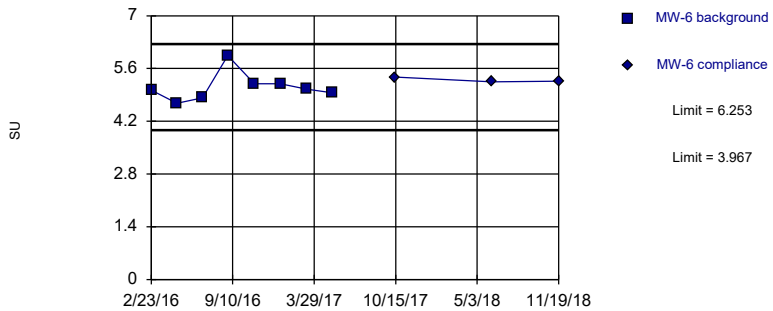
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.11, Std. Dev.=0.3792, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8514, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2	MW-2
2/22/2016	6.11 (B01)	
4/25/2016	5.65 (B02)	
6/27/2016	5.35 (B03)	
8/29/2016	7.06 (B04)	
11/1/2016	6.65 (B05)	
1/4/2017	6.88 (B06)	
3/10/2017	6.59 (B07)	
5/11/2017	6.7 (B08)	
10/12/2017		6.66
6/6/2018		6.47
11/19/2018		6.09

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-3	MW-3
2/22/2016	5.09 (B01)	
4/25/2016	5 (B02)	
6/27/2016	4.94 (B03)	
8/29/2016	5.17 (B04)	
11/1/2016	4.91 (B05)	
1/4/2017	4.99 (B06)	
3/10/2017	5.02 (B07)	
5/11/2017	4.76 (B08)	
10/12/2017		4.74
6/6/2018		4.96
11/19/2018		4.95

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-12	MW-12
2/22/2016	6.19 (B01)	
4/26/2016	5.99 (B02)	
6/27/2016	6.04 (B03)	
8/29/2016	6.01 (B04)	
11/1/2016	6.03 (B05)	
1/4/2017	6.1 (B06)	
3/10/2017	6.1 (B07)	
5/11/2017	5.95 (B08)	
10/12/2017		5.9
6/6/2018		6.04
11/19/2018		6.11

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

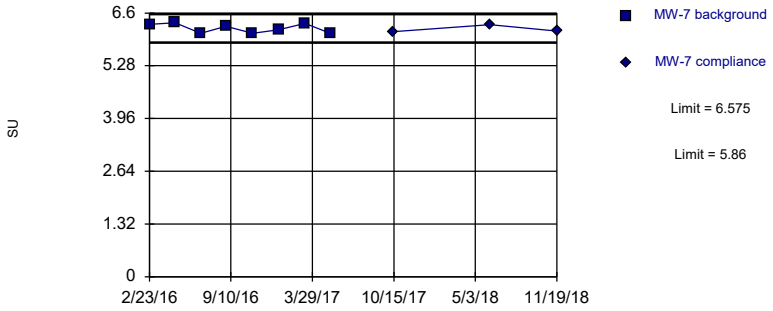
Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-6	MW-6
2/23/2016	5.03 (B01)	
4/26/2016	4.68 (B02)	
6/28/2016	4.82 (B03)	
8/29/2016	5.94 (B04)	
11/2/2016	5.2 (B05)	
1/5/2017	5.2 (B06)	
3/11/2017	5.05 (B07)	
5/11/2017	4.96 (B08)	
10/12/2017		5.37
6/8/2018		5.25
11/19/2018		5.26

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.218, Std. Dev.=0.1188, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8379, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

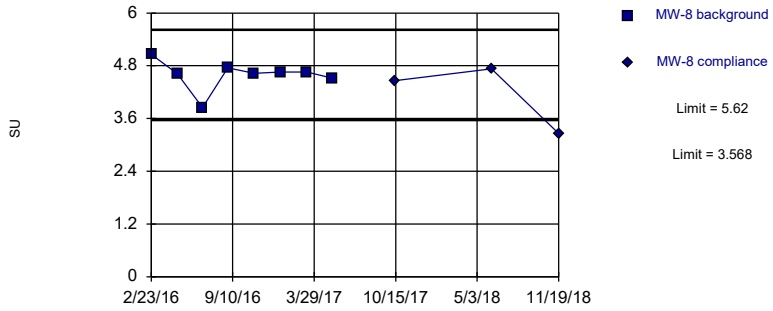
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.594, Std. Dev.=0.3404, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8163, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

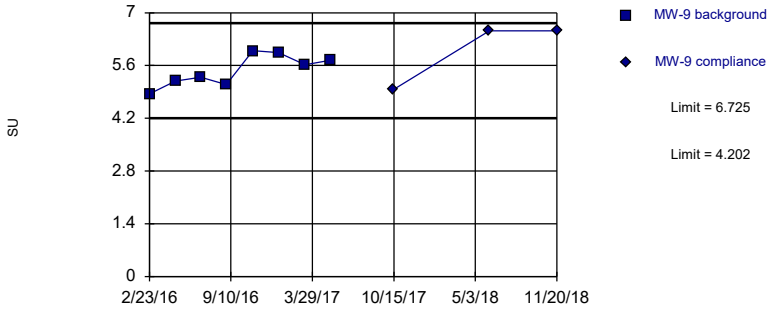
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.464, Std. Dev.=0.4185, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9395, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

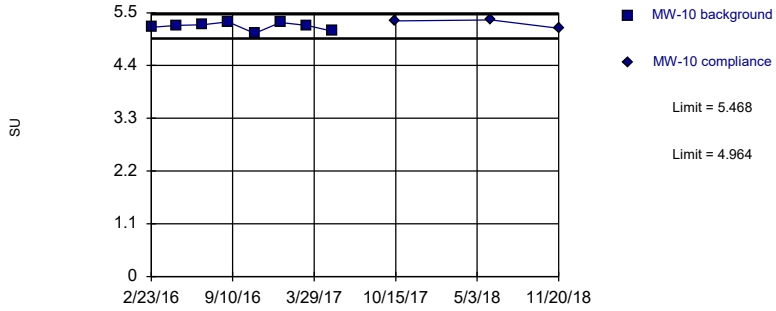
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.216, Std. Dev.=0.08366, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9081, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-7	MW-7
2/23/2016	6.32 (B01)	
4/26/2016	6.36 (B02)	
6/28/2016	6.09 (B03)	
8/29/2016	6.27 (B04)	
11/2/2016	6.09 (B05)	
1/5/2017	6.18 (B06)	
3/11/2017	6.34 (B07)	
5/12/2017	6.09 (B08)	
10/12/2017		6.13
6/8/2018		6.31
11/19/2018		6.15

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-8	MW-8
2/23/2016	5.06 (B01)	
4/27/2016	4.62 (B02)	
6/28/2016	3.85 (B03)	
8/29/2016	4.75 (B04)	
11/2/2016	4.63 (B05)	
1/5/2017	4.66 (B06)	
3/11/2017	4.66 (B07)	
5/12/2017	4.52 (B08)	
10/13/2017		4.46
6/7/2018		4.73
11/19/2018		3.26

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-9	MW-9
2/23/2016	4.85 (B01)	
4/27/2016	5.19 (B02)	
6/28/2016	5.29 (B03)	
8/30/2016	5.09 (B04)	
11/3/2016	5.99 (B05)	
1/5/2017	5.94 (B06)	
3/11/2017	5.62 (B07)	
5/12/2017	5.74 (B08)	
10/13/2017		4.95
6/7/2018		6.52
11/20/2018		6.52

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

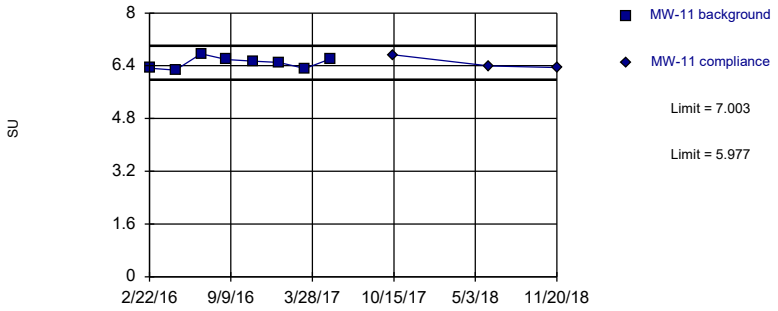
Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-10	MW-10
2/23/2016	5.2 (B01)	
4/26/2016	5.24 (B02)	
6/28/2016	5.25 (B03)	
8/30/2016	5.31 (B04)	
11/3/2016	5.07 (B05)	
1/5/2017	5.3 (B06)	
3/11/2017	5.24 (B07)	
5/12/2017	5.12 (B08)	
10/13/2017		5.33
6/7/2018		5.35
11/20/2018		5.18

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.49, Std. Dev.=0.1702, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

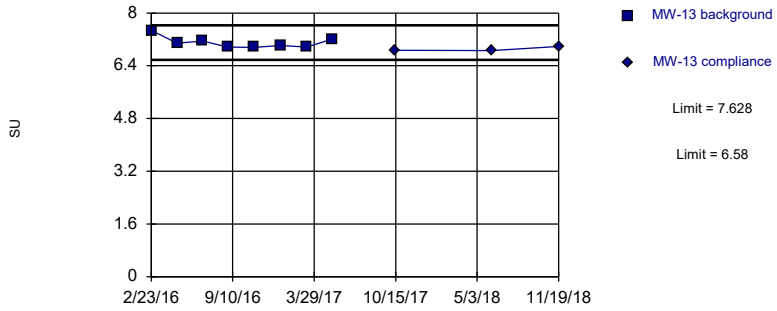
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.104, Std. Dev.=0.1739, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.831, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

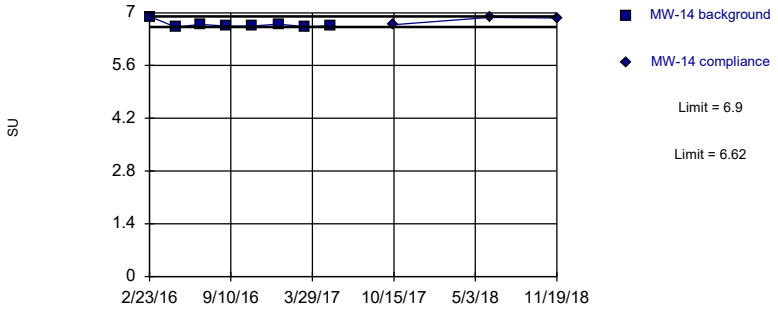
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2).

Constituent: pH Analysis Run 2/8/2019 10:51 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-11	MW-11
2/22/2016	6.33 (B01)	
4/26/2016	6.27 (B02)	
6/28/2016	6.76 (B03)	
8/30/2016	6.59 (B04)	
11/3/2016	6.54 (B05)	
1/5/2017	6.5 (B06)	
3/11/2017	6.32 (B07)	
5/12/2017	6.61 (B08)	
10/13/2017		6.73
6/7/2018		6.39
11/20/2018		6.35

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-13
2/23/2016	7.47 (B01)	
4/27/2016	7.08 (B02)	
6/28/2016	7.15 (B03)	
8/29/2016	6.97 (B04)	
11/2/2016	6.96 (B05)	
1/5/2017	7.02 (B06)	
3/11/2017	6.97 (B07)	
5/12/2017	7.21 (B08)	
10/13/2017		6.87
6/7/2018		6.86
11/19/2018		6.99

Prediction Limit

Constituent: pH (SU) Analysis Run 2/8/2019 10:53 AM View: PL's - Intrawell

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-14	MW-14
2/23/2016	6.9 (B01)	
4/27/2016	6.62 (B02)	
6/28/2016	6.69 (B03)	
8/29/2016	6.65 (B04)	
11/2/2016	6.65 (B05)	
1/5/2017	6.7 (B06)	
3/11/2017	6.63 (B07)	
5/12/2017	6.66 (B08)	
10/13/2017		6.68
6/7/2018		6.88
11/19/2018		6.86

Trend Tests - Prediction Limit Exceedances

Trend Test Summary Table - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:26 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**MW-7**	**0.3396**	**48**	**38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-8**	**-41.13**	**-51**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-9**	**-76.29**	**-53**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-10**	**-57.63**	**-49**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-13**	**-83.7**	**-48**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**MW-9**	**-300.6**	**-50**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-7**	**120.1**	**53**	**38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**MW-11**	**-871.4**	**-46**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Test Summary Table - All Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:26 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-2 (bg)	0.001332	22	38	No	12	50	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0	3	38	No	12	91.67	n/a	n/a	0.01	NP
Boron (mg/L)	MW-12 (bg)	-0.01221	-17	-38	No	12	8.333	n/a	n/a	0.01	NP
Boron (mg/L)	MW-6	0.03276	2	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	**MW-7**	**0.3396**	**48**	**38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	MW-8	0	-3	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-9	-0.4577	-16	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-10	0.5678	18	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-11	-0.1045	-12	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-13	-0.9355	-16	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-14	1.096	27	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	0.4138	1	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	0	3	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-12 (bg)	2.861	23	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-6	-68.34	-32	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-7	6.024	8	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-8**	**-41.13**	**-51**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-9**	**-76.29**	**-53**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-10**	**-57.63**	**-49**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-11	-26.82	-38	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-13**	**-83.7**	**-48**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-14	9.839	12	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-1.888	-26	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0	27	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12 (bg)	8.358	15	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-6	-297.5	-31	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-7	-21.83	-10	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	-138.4	-16	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**MW-9**	**-300.6**	**-50**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-10	-191.5	-33	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-11	-468.1	-38	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-13	0	0	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-14	-170.5	-27	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	0.01058	1	34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	-0.05683	-21	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	MW-12 (bg)	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	MW-8	-0.2102	-16	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-0.5962	-30	-38	No	12	41.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	0	19	38	No	12	83.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-12 (bg)	0	-16	-38	No	12	66.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-6	-7.087	-4	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-7**	**120.1**	**53**	**38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-8	0	1	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-9	-73.77	-16	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-10	-13.98	-3	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-11	-55.51	-35	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-13	-131.4	-12	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-14	24.83	16	38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-2 (bg)	-9.854	-5	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-3 (bg)	-7.485	-18	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-12 (bg)	0	4	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-6	-745	-28	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-7	-182.3	-19	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-8	-575.5	-23	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-9	-749.9	-38	-38	No	12	0	n/a	n/a	0.01	NP

Trend Test Summary Table - All Results

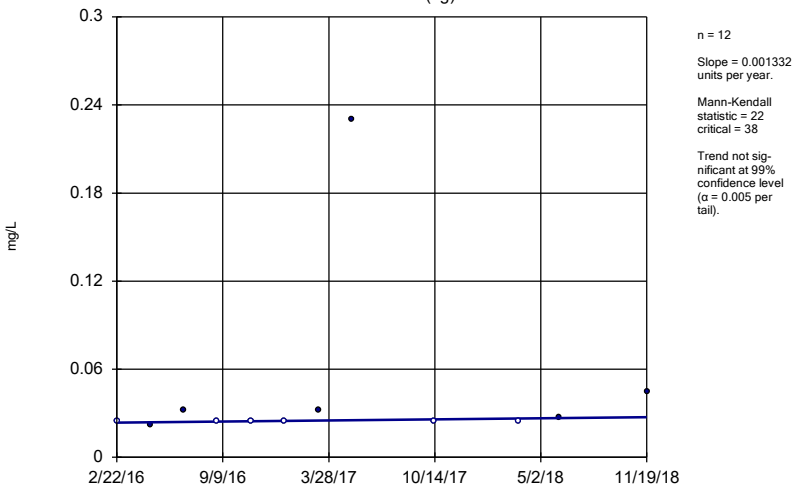
Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:26 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Total Dissolved Solids (mg/L)	MW-10	-380.6	-28	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**MW-11**	**-871.4**	**-46**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	MW-13	-88.59	-11	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-14	-105.6	-13	-38	No	12	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2 (bg)



n = 12

Slope = 0.001332 units per year.

Mann-Kendall statistic = 22
critical = 38

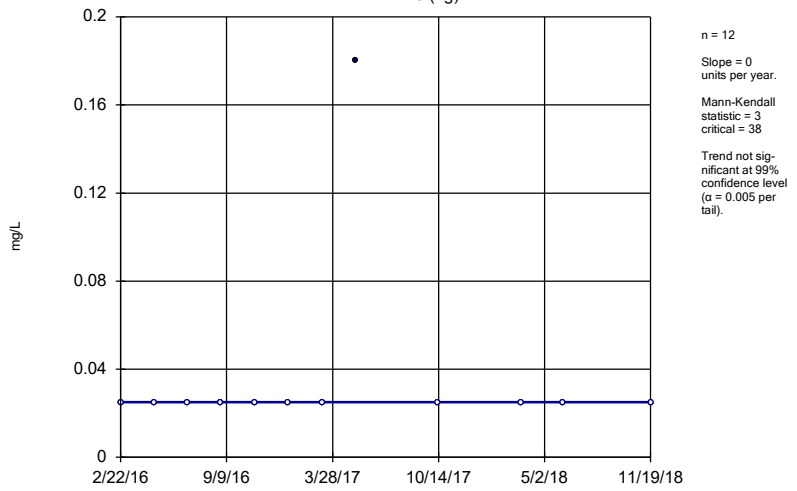
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 38

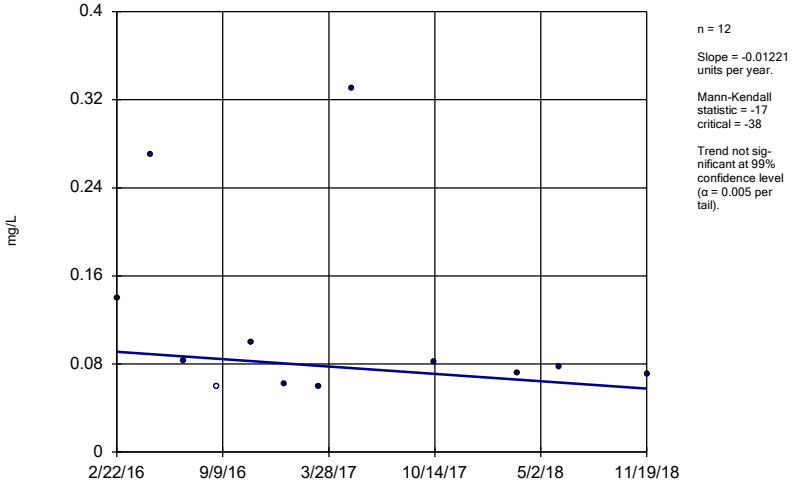
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12 (bg)



n = 12

Slope = -0.01221 units per year.

Mann-Kendall statistic = -17
critical = -38

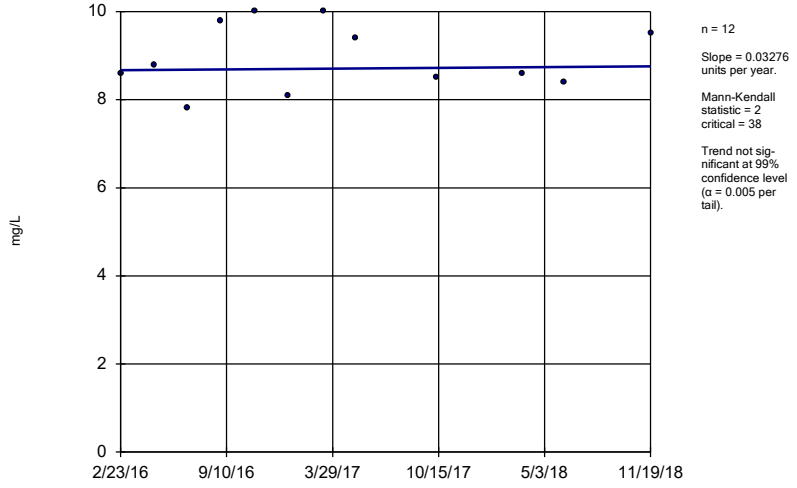
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-6



n = 12

Slope = 0.03276 units per year.

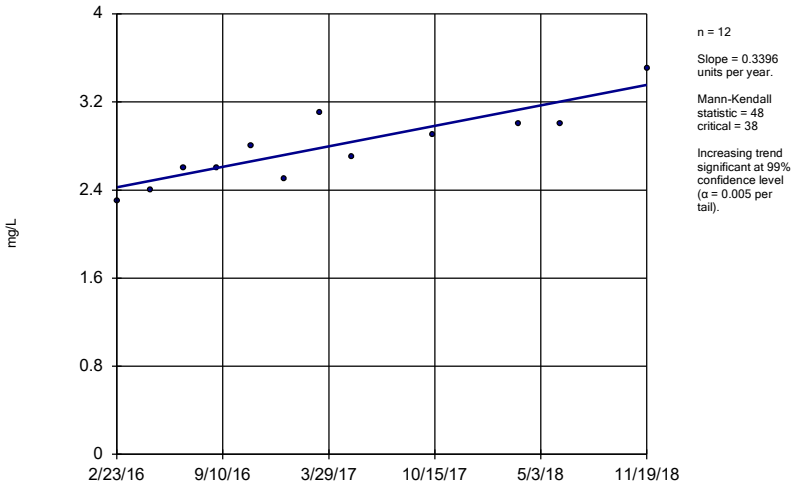
Mann-Kendall statistic = 2
critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-7



n = 12

Slope = 0.3396 units per year.

Mann-Kendall statistic = 48
critical = 38

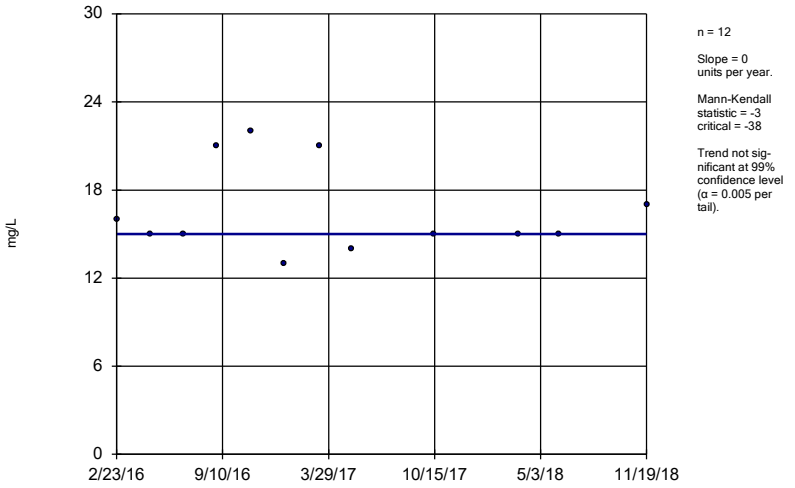
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -3
critical = -38

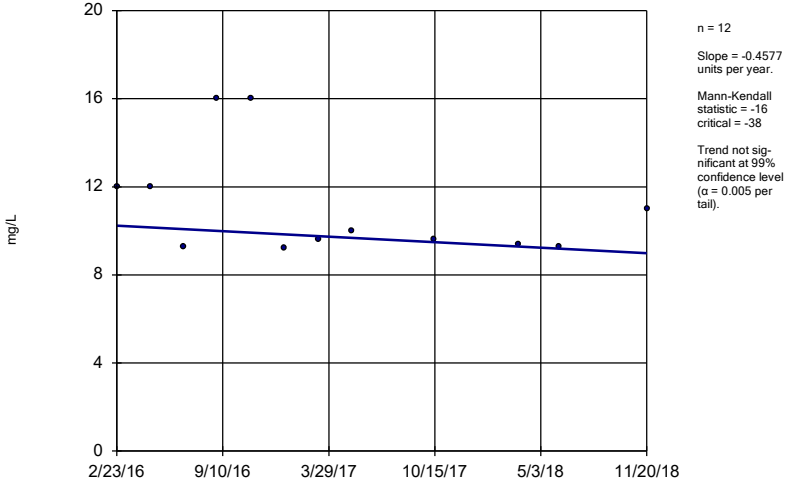
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-9



n = 12

Slope = -0.4577 units per year.

Mann-Kendall statistic = -16
critical = -38

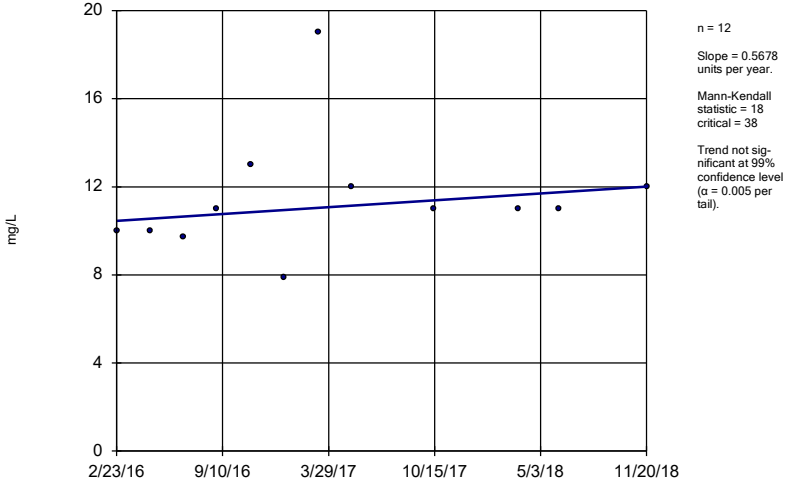
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-10



n = 12

Slope = 0.5678 units per year.

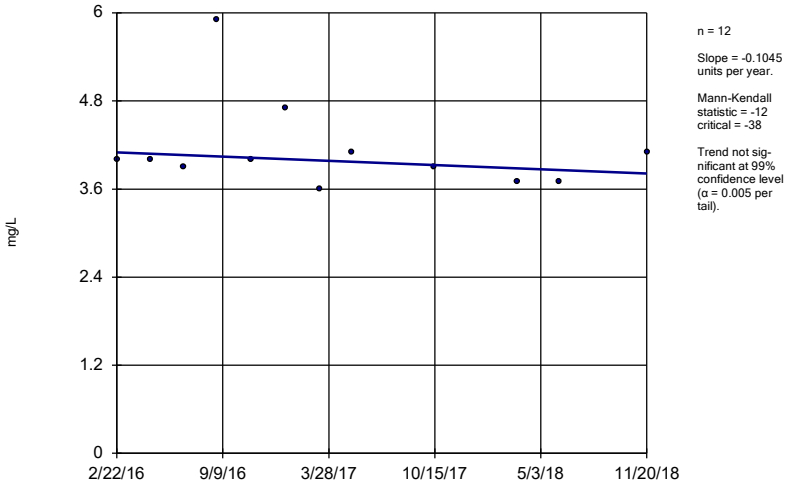
Mann-Kendall statistic = 18
critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-11



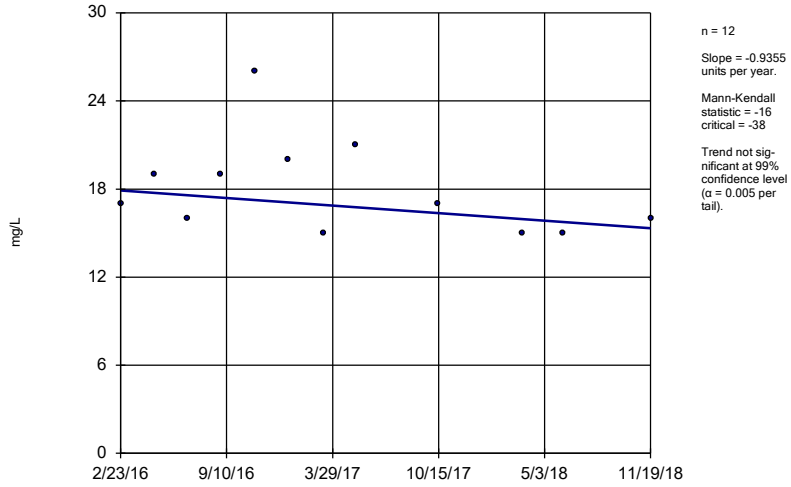
Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-13



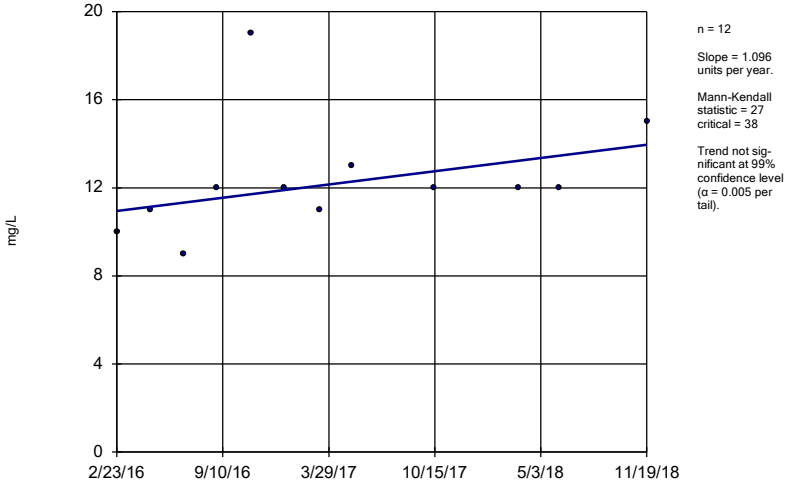
Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-14



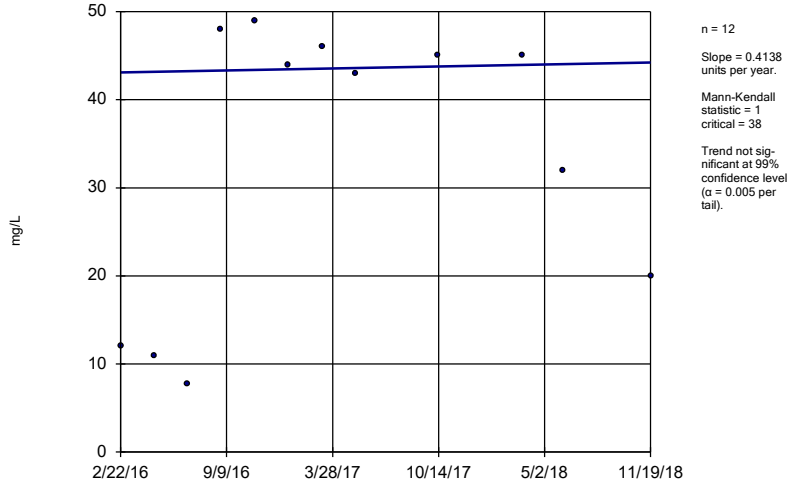
Constituent: Boron Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-2 (bg)

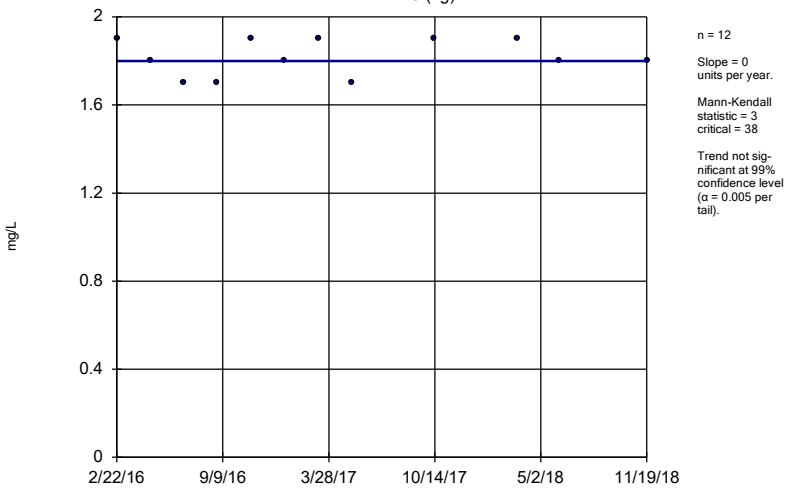


Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-3 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

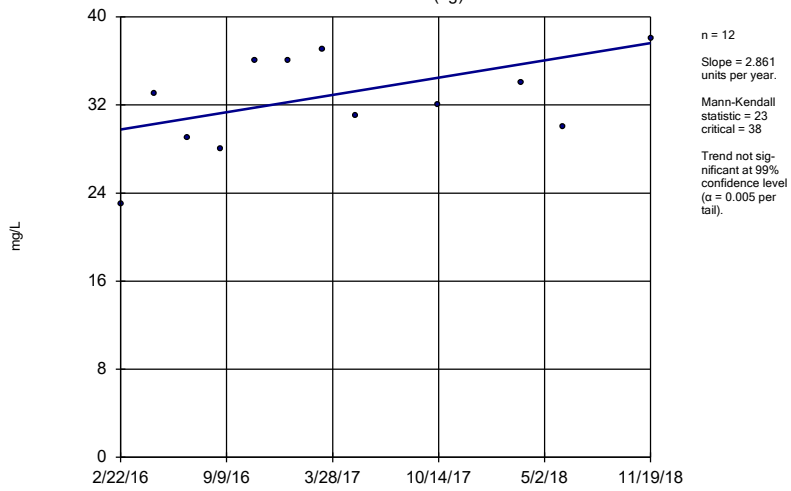
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-12 (bg)



n = 12

Slope = 2.861 units per year.

Mann-Kendall statistic = 23 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

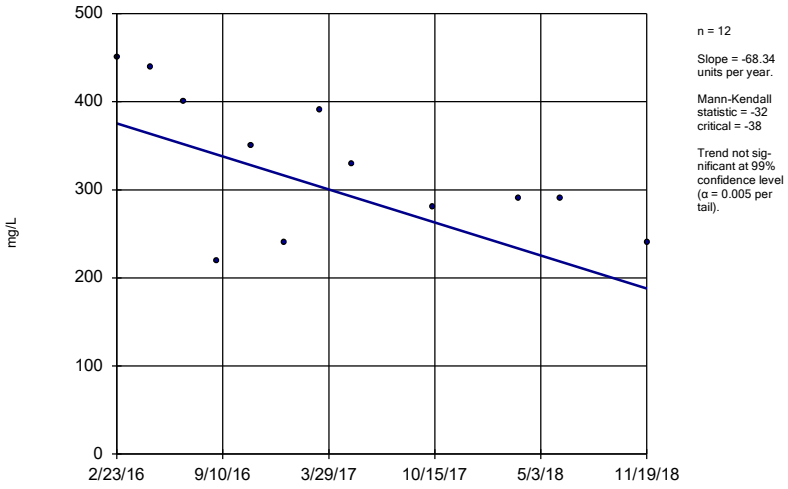
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-6



n = 12

Slope = -68.34 units per year.

Mann-Kendall statistic = -32 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

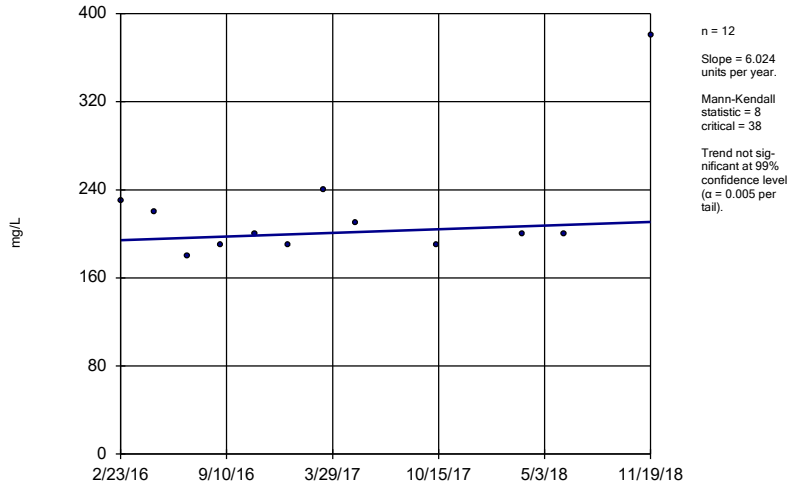
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-7



n = 12

Slope = 6.024 units per year.

Mann-Kendall statistic = 8 critical = 38

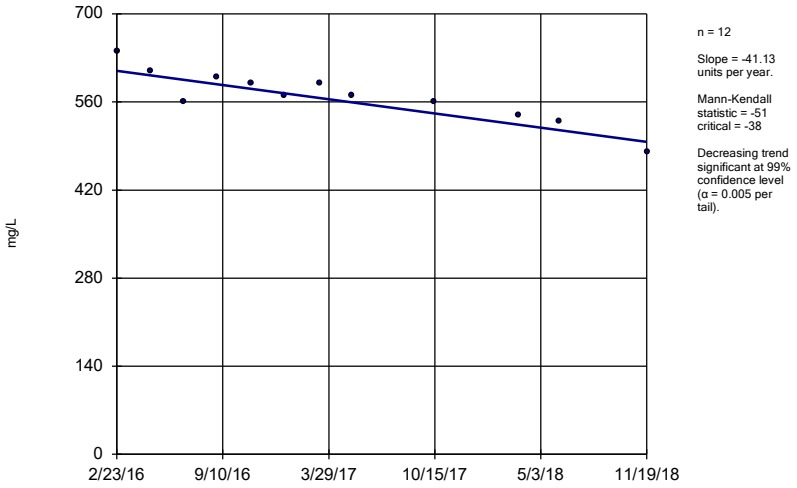
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-8



n = 12

Slope = -41.13 units per year.

Mann-Kendall statistic = -51 critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

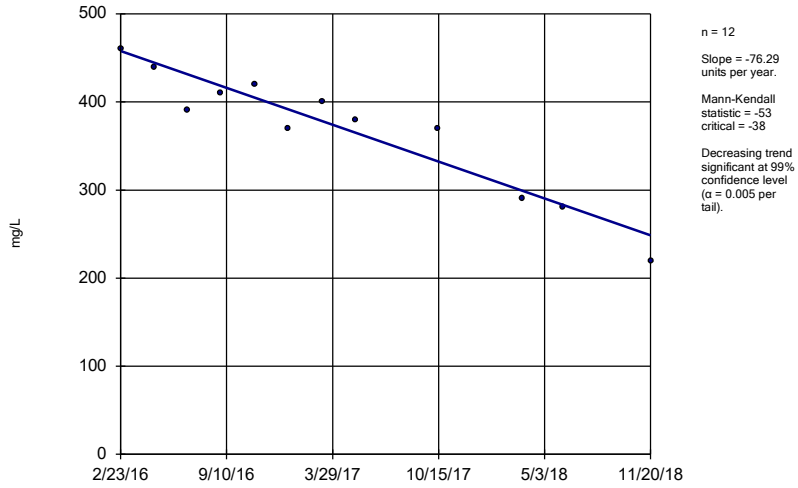
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-9



n = 12

Slope = -76.29 units per year.

Mann-Kendall statistic = -53 critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

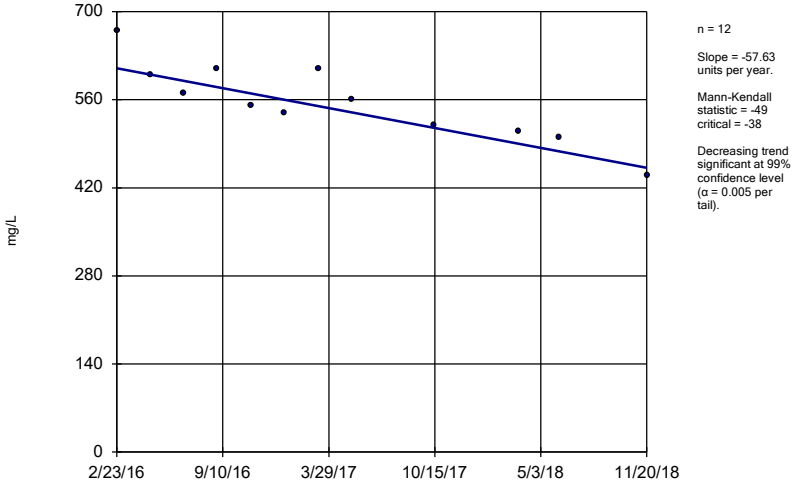
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-10



n = 12

Slope = -57.63 units per year.

Mann-Kendall statistic = -49 critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

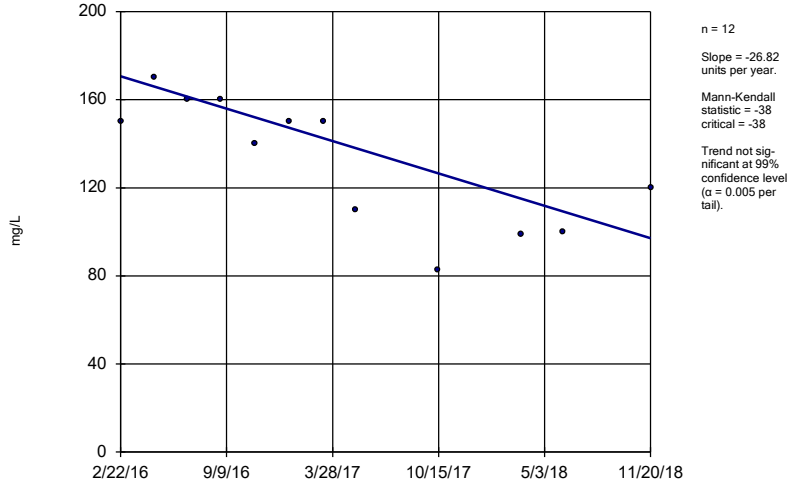
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-11



n = 12

Slope = -26.82 units per year.

Mann-Kendall statistic = -38 critical = -38

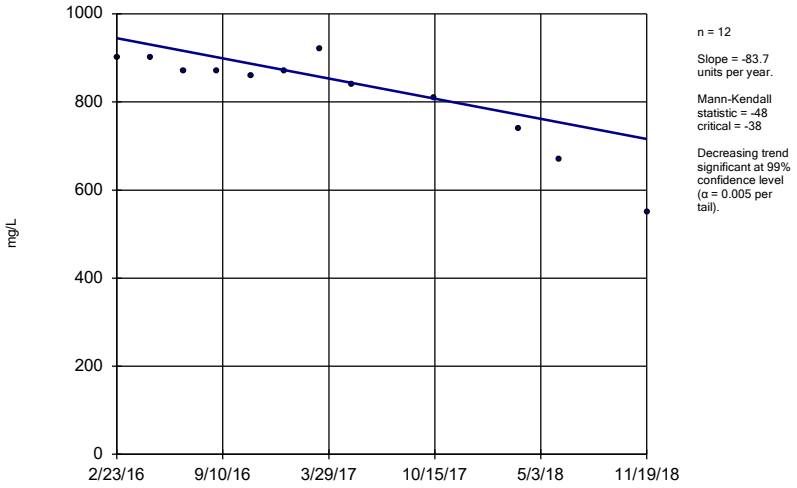
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-13



n = 12

Slope = -83.7 units per year.

Mann-Kendall statistic = -48 critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

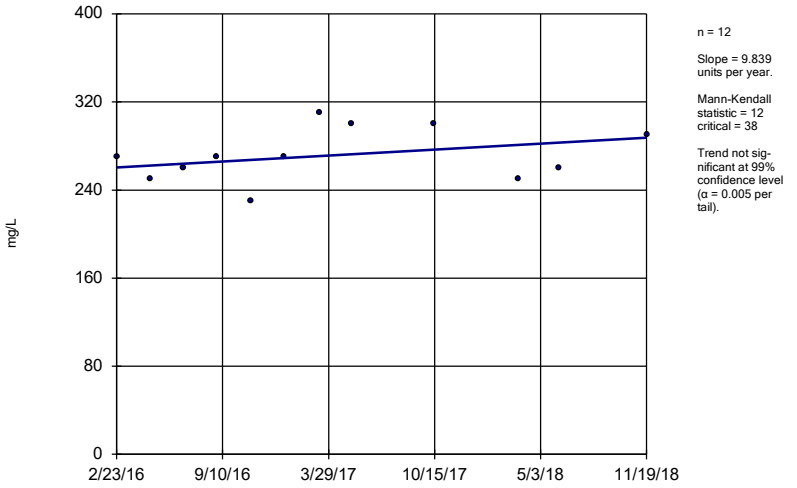
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-14



n = 12

Slope = 9.839 units per year.

Mann-Kendall statistic = 12 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

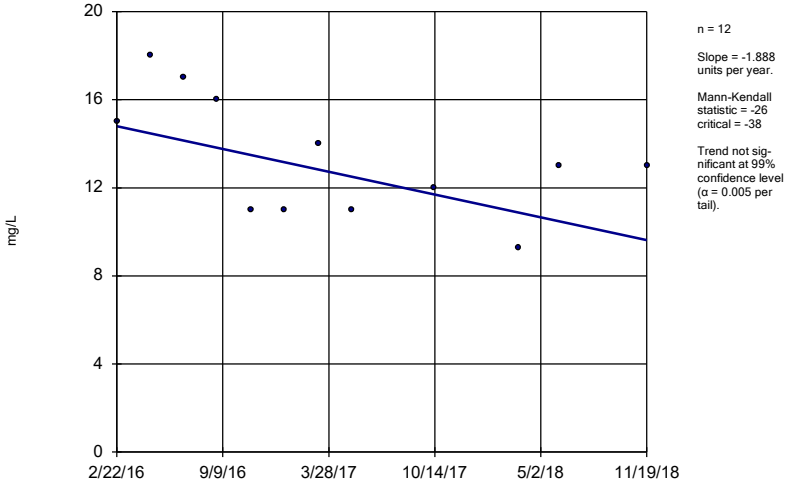
Constituent: Calcium Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-2 (bg)



n = 12

Slope = -1.888 units per year.

Mann-Kendall statistic = -26 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

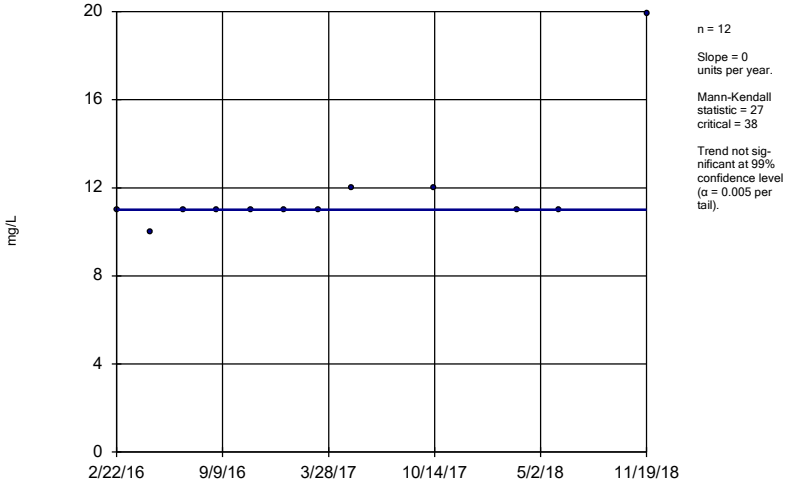
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-3 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 27 critical = 38

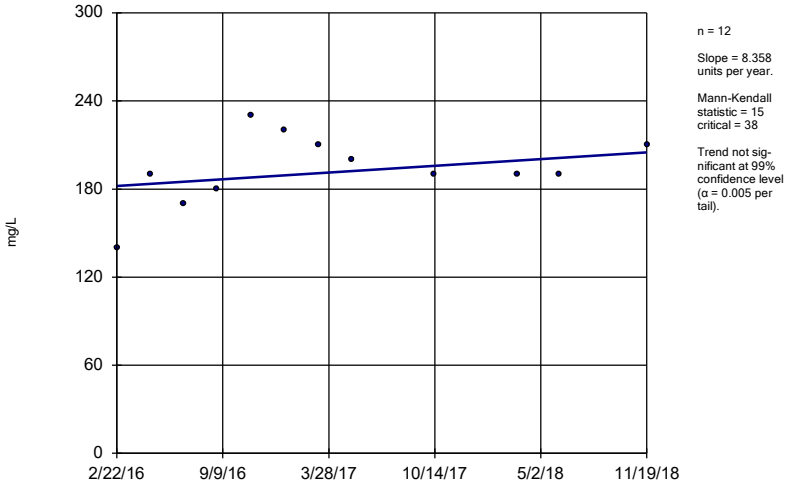
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-12 (bg)



n = 12

Slope = 8.358 units per year.

Mann-Kendall statistic = 15 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

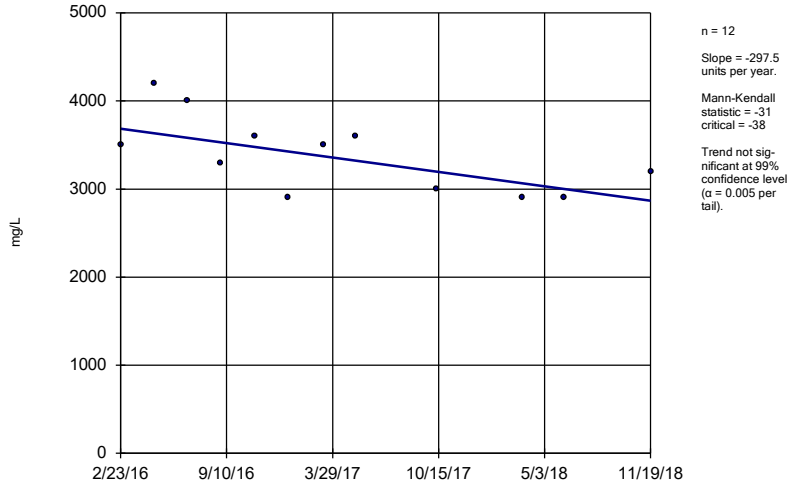
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-6



n = 12

Slope = -297.5 units per year.

Mann-Kendall statistic = -31 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

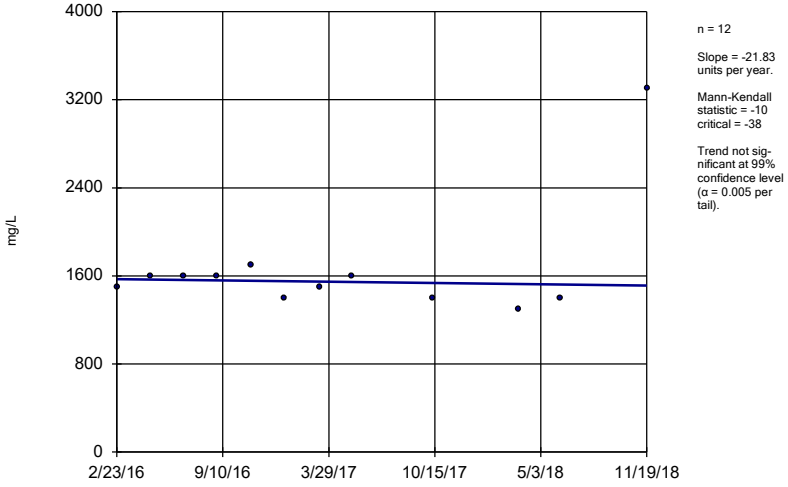
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-7



n = 12

Slope = -21.83 units per year.

Mann-Kendall statistic = -10 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

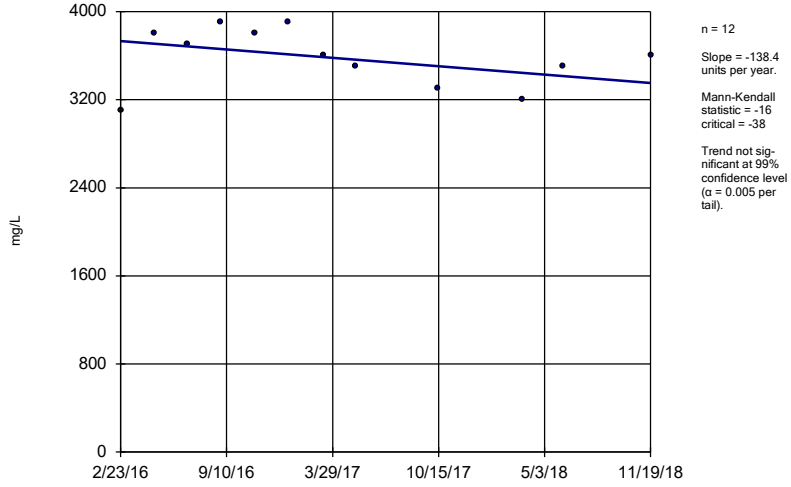
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



n = 12

Slope = -138.4 units per year.

Mann-Kendall statistic = -16 critical = -38

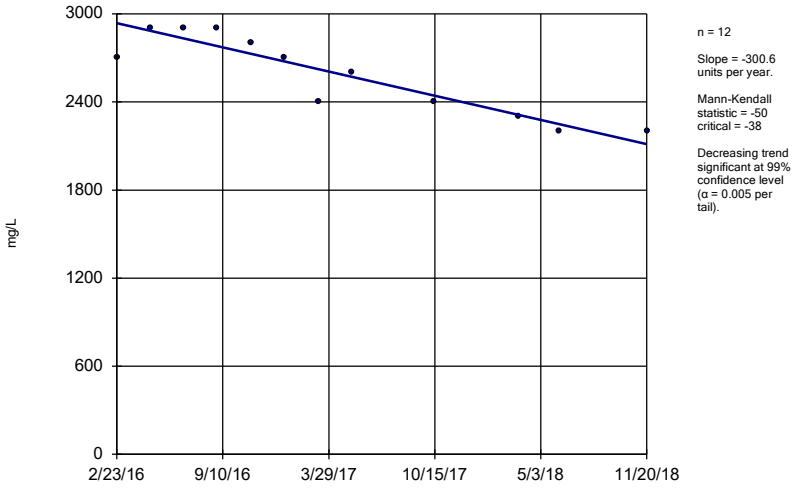
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-9



n = 12

Slope = -300.6 units per year.

Mann-Kendall statistic = -50 critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

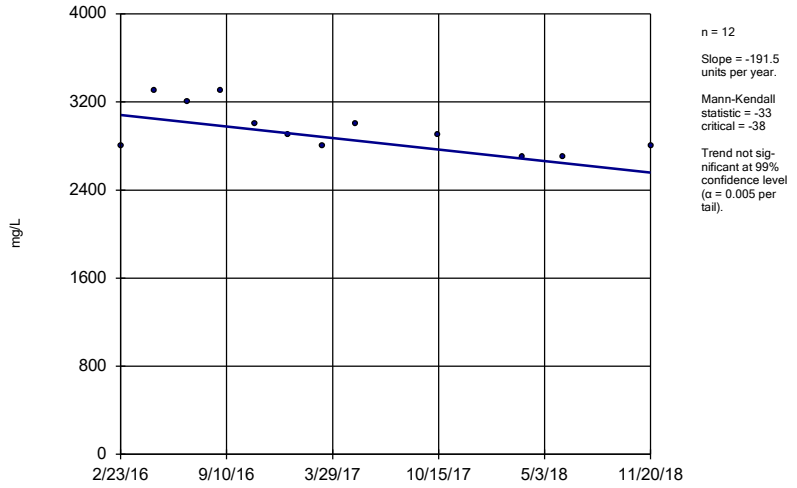
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-10



n = 12

Slope = -191.5 units per year.

Mann-Kendall statistic = -33 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

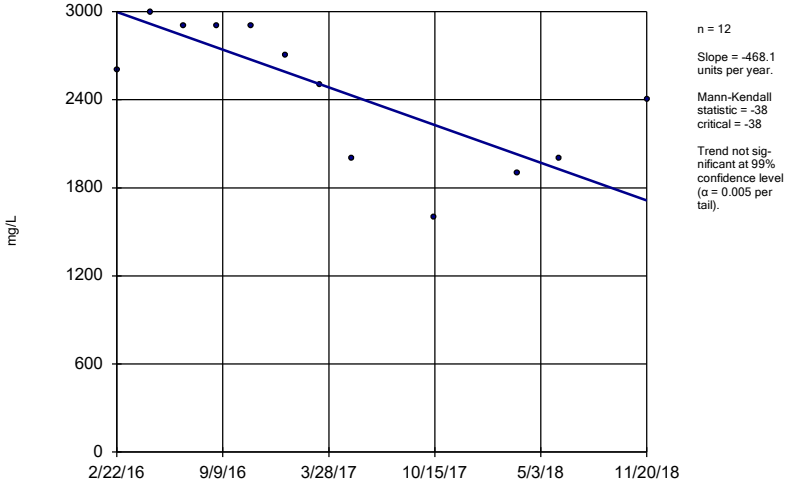
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-11



n = 12

Slope = -468.1 units per year.

Mann-Kendall statistic = -38 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

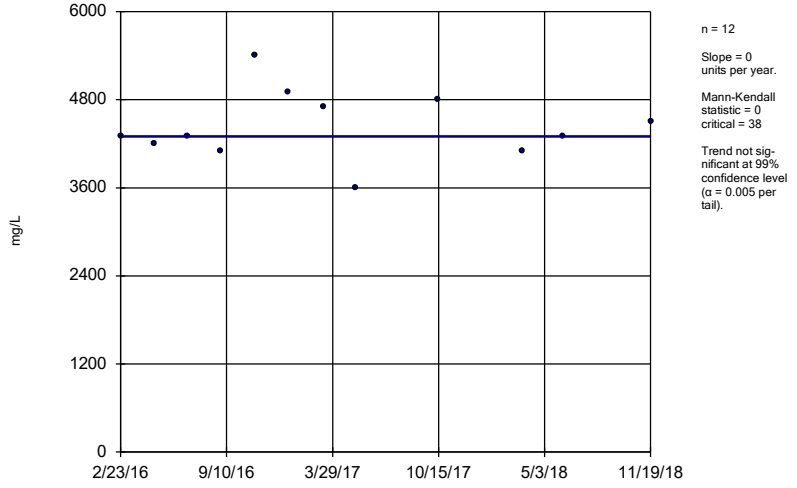
Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-13



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 38

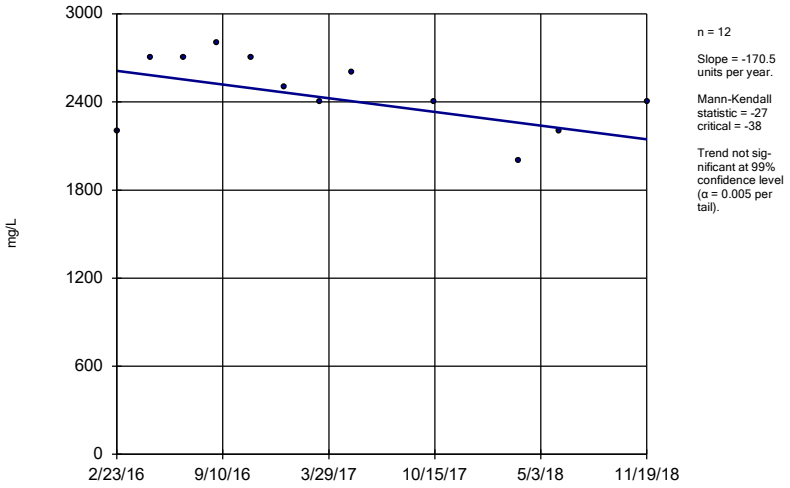
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-14

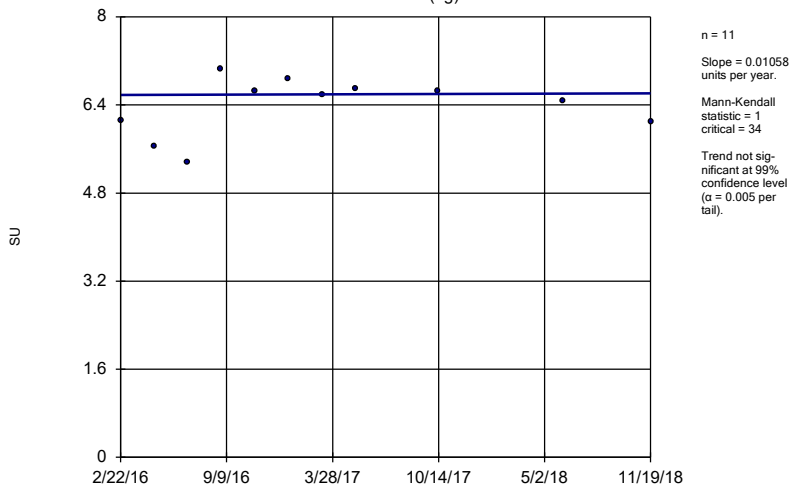


Constituent: Chloride Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-2 (bg)

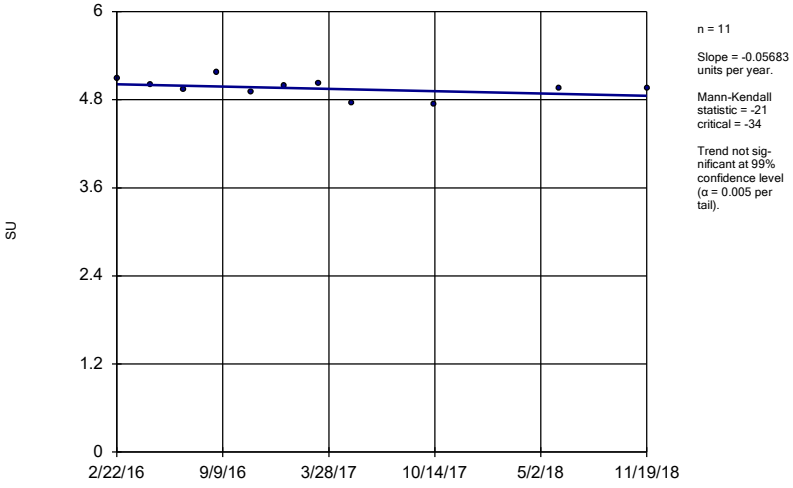


Constituent: pH Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-3 (bg)

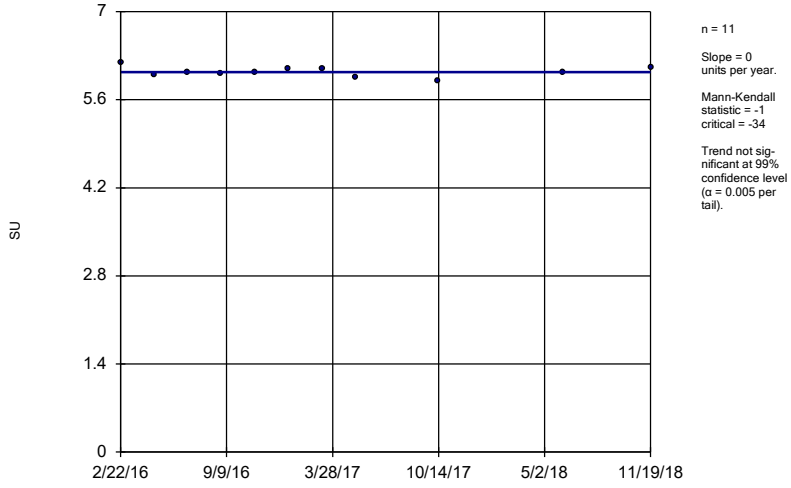


Constituent: pH Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-12 (bg)

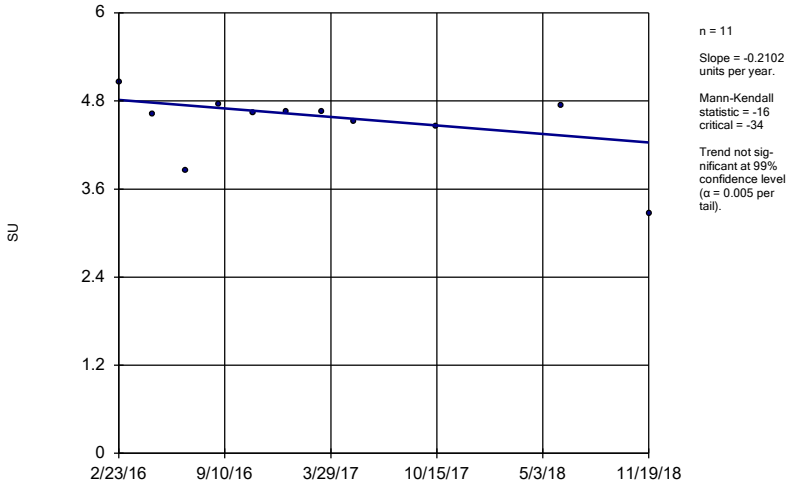


Constituent: pH Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



Constituent: pH Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

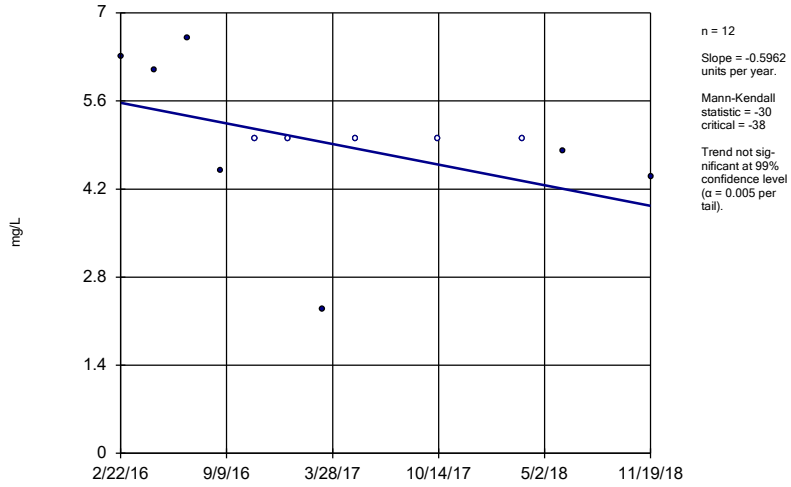
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2 (bg)



Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

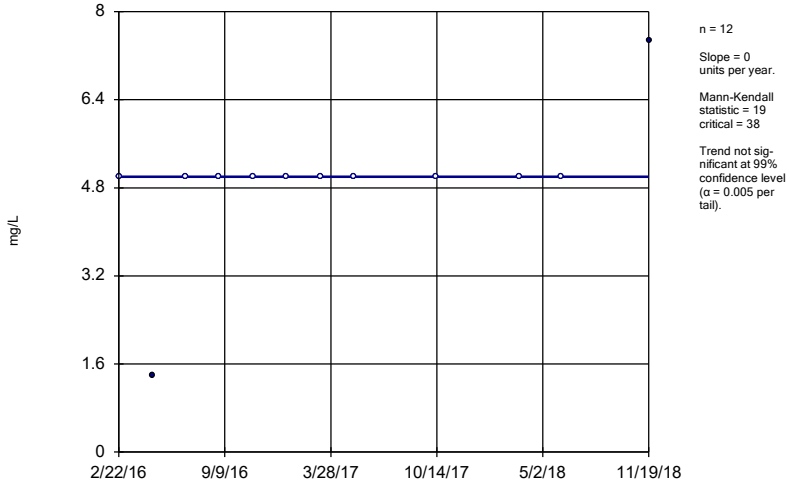
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

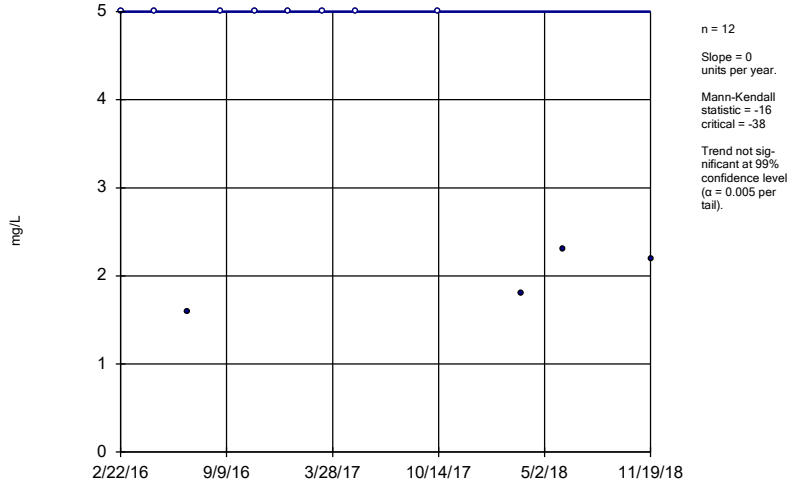
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12 (bg)

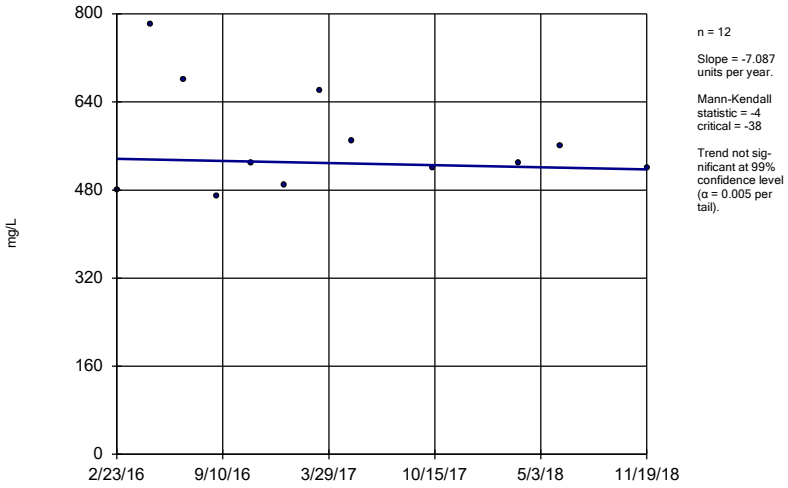


Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-6



n = 12

Slope = -7.087 units per year.

Mann-Kendall statistic = -4
critical = -38

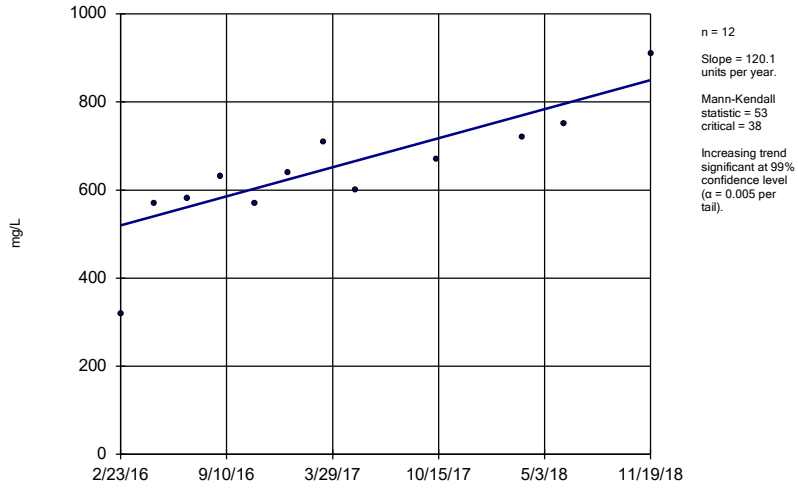
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-7



n = 12

Slope = 120.1 units per year.

Mann-Kendall statistic = 53
critical = 38

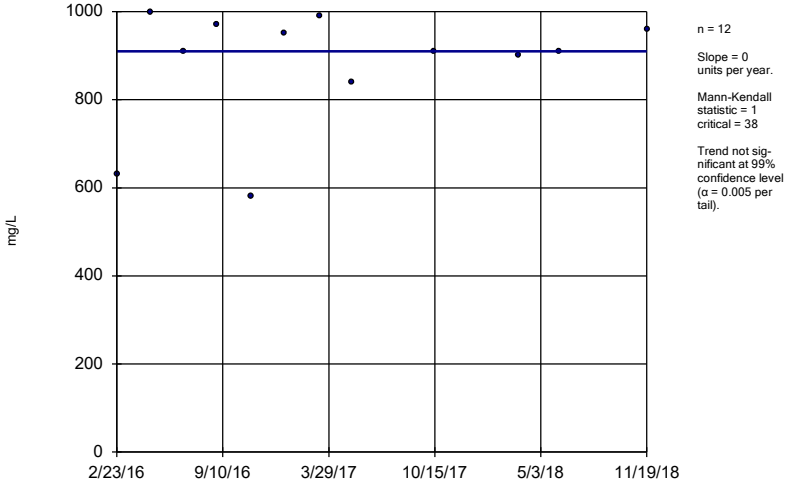
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 38

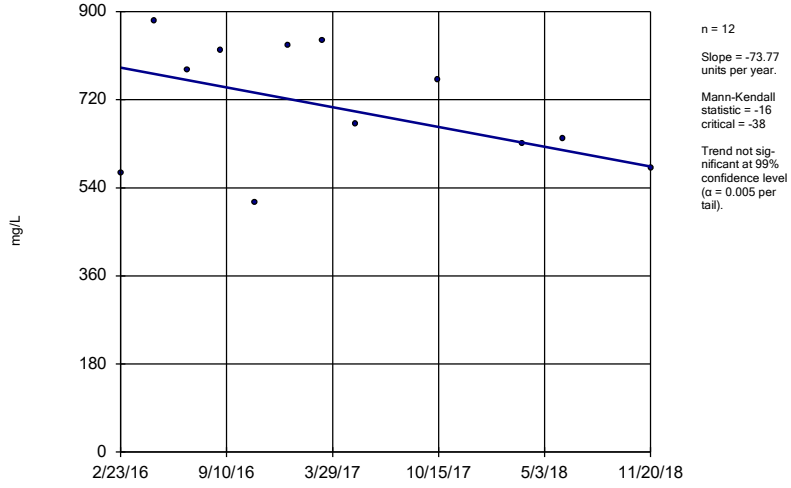
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-9



n = 12

Slope = -73.77 units per year.

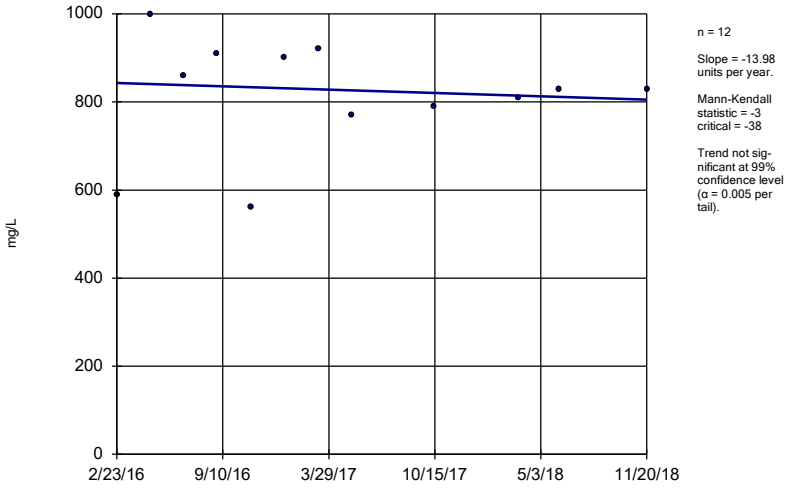
Mann-Kendall statistic = -16
critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-10

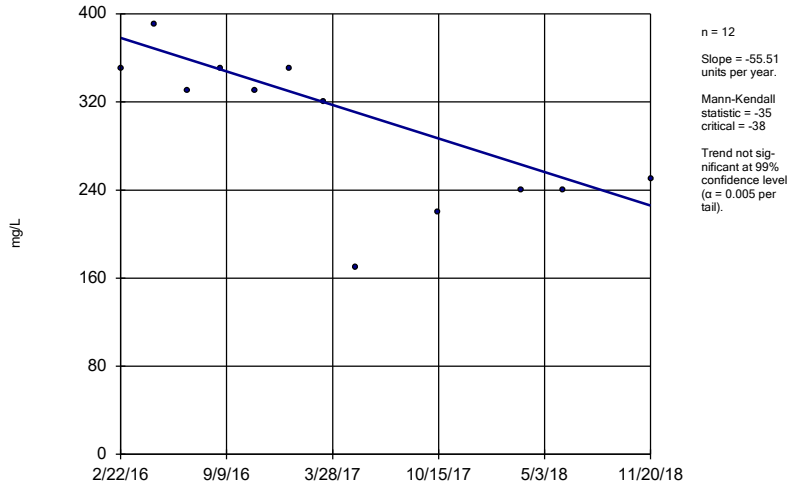


Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-11

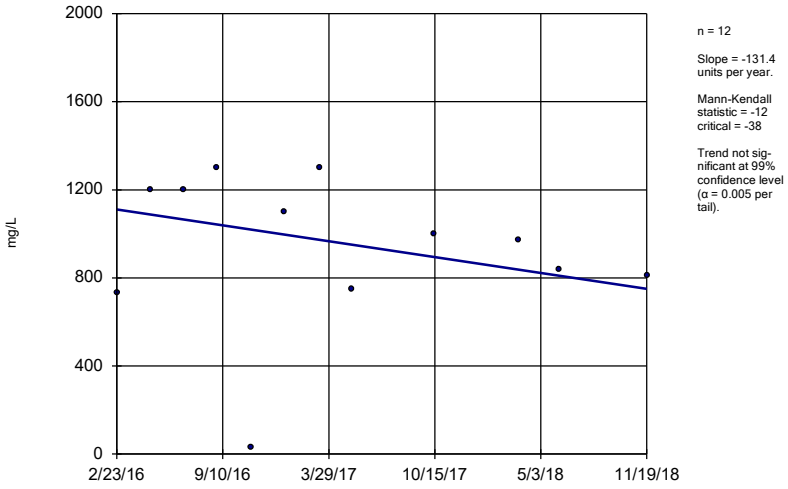


Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-13

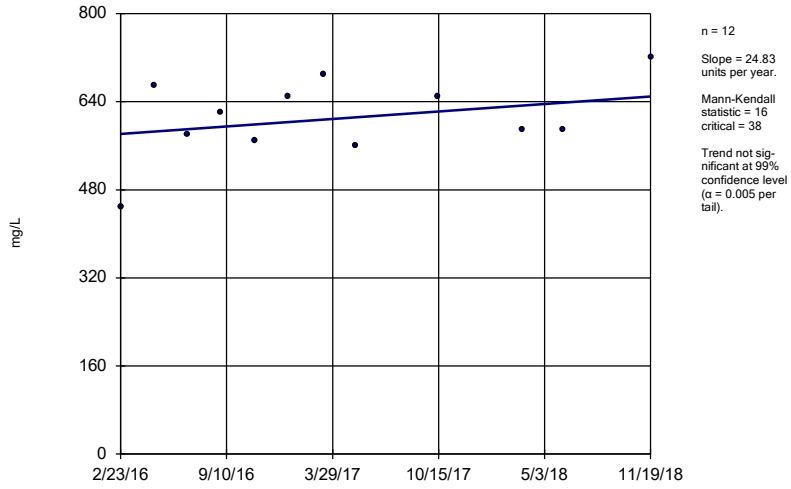


Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

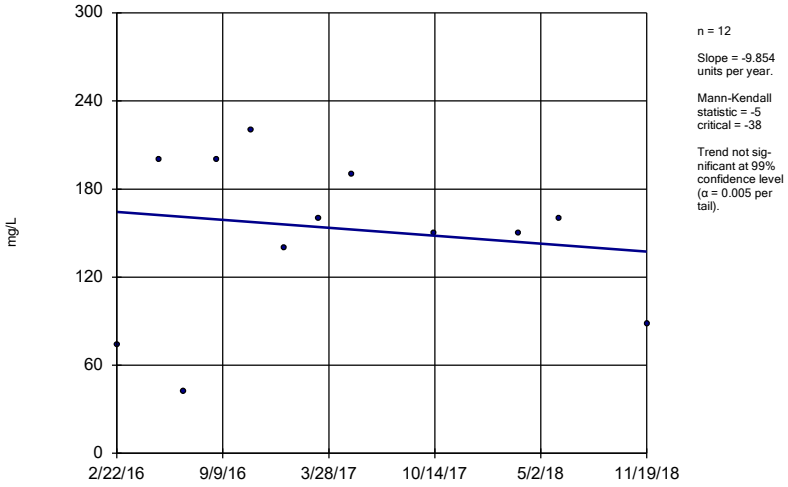
MW-14



Constituent: Sulfate Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-2 (bg)



n = 12

Slope = -9.854 units per year.

Mann-Kendall statistic = -5 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

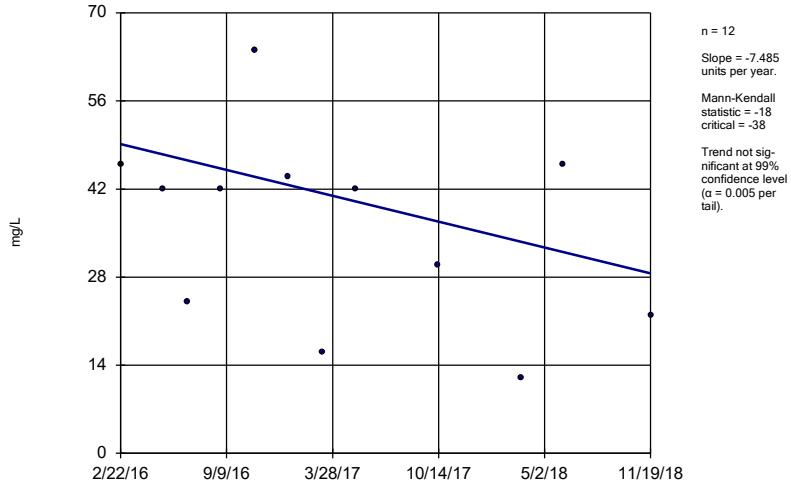
Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:24 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-3 (bg)



n = 12

Slope = -7.485 units per year.

Mann-Kendall statistic = -18 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

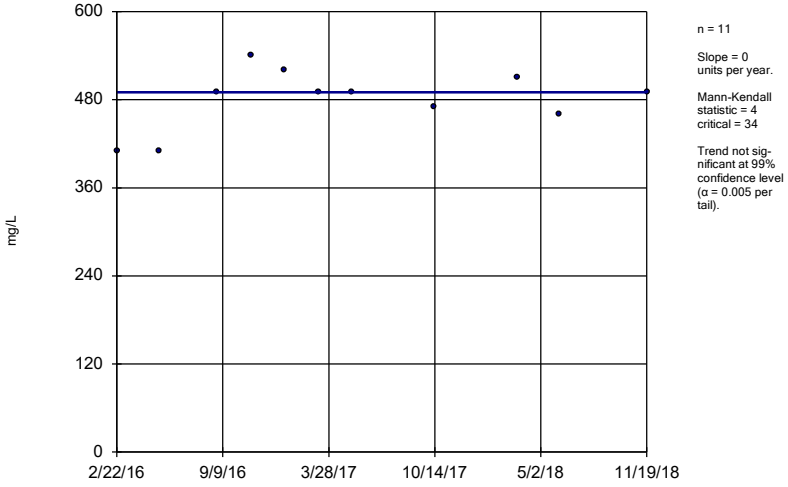
Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-12 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 4 critical = 34

Trend not significant at 99% confidence level (α = 0.005 per tail).

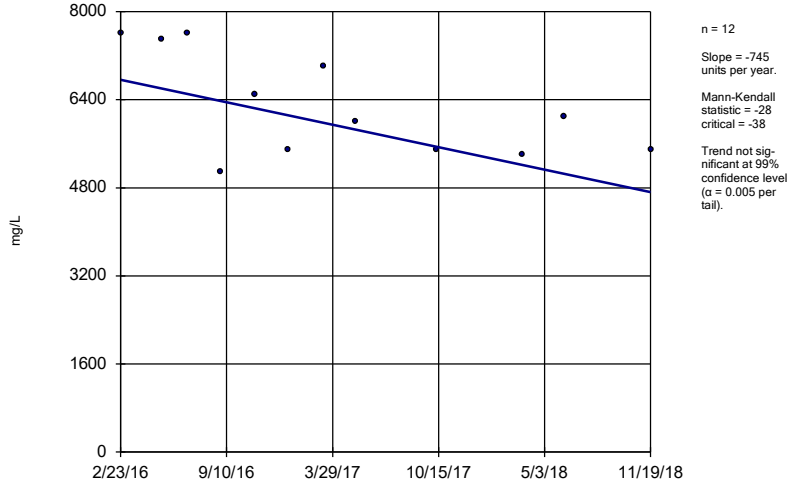
Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-6



n = 12

Slope = -745 units per year.

Mann-Kendall statistic = -28 critical = -38

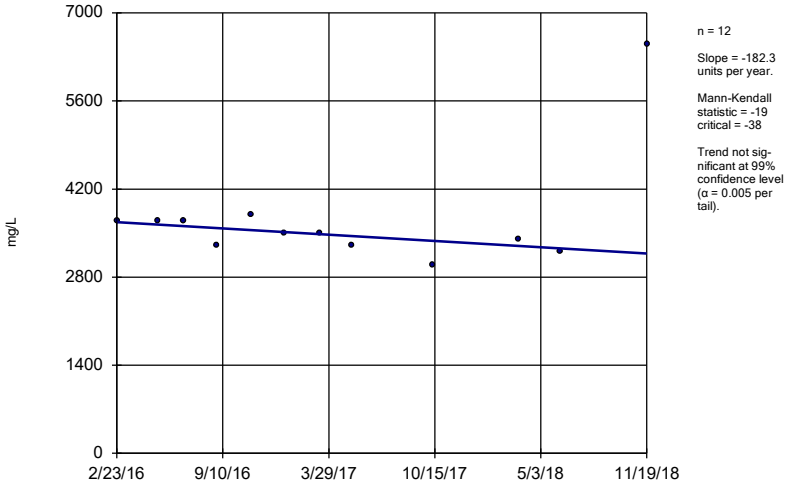
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-7



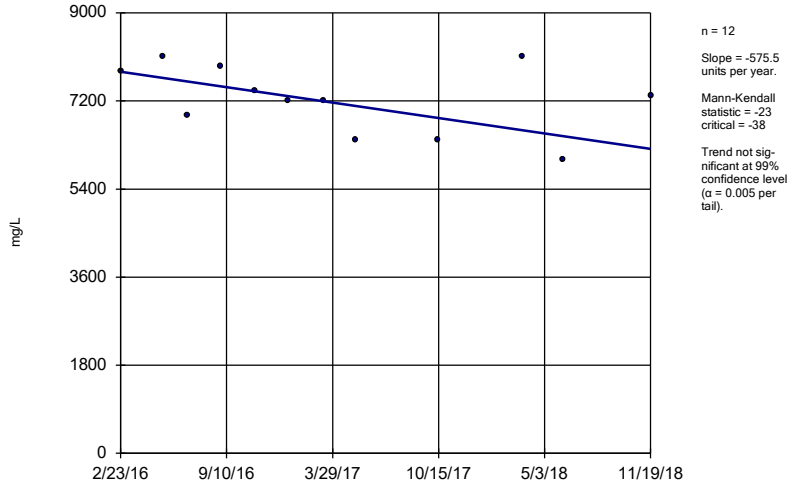
Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-8



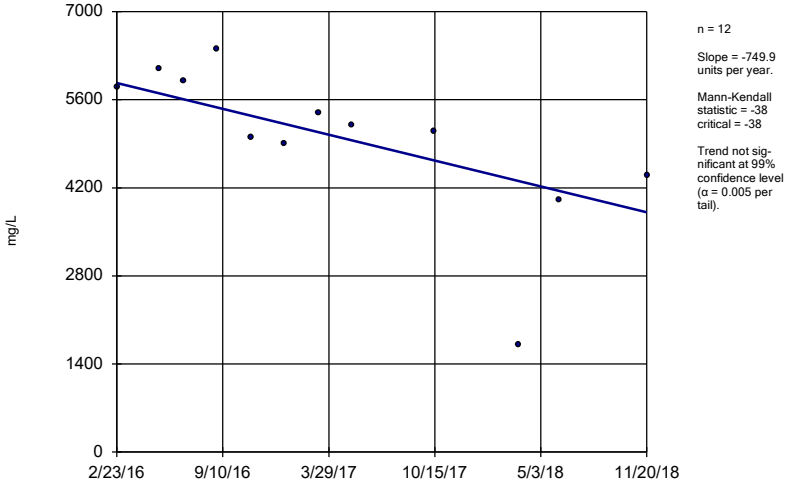
Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-9



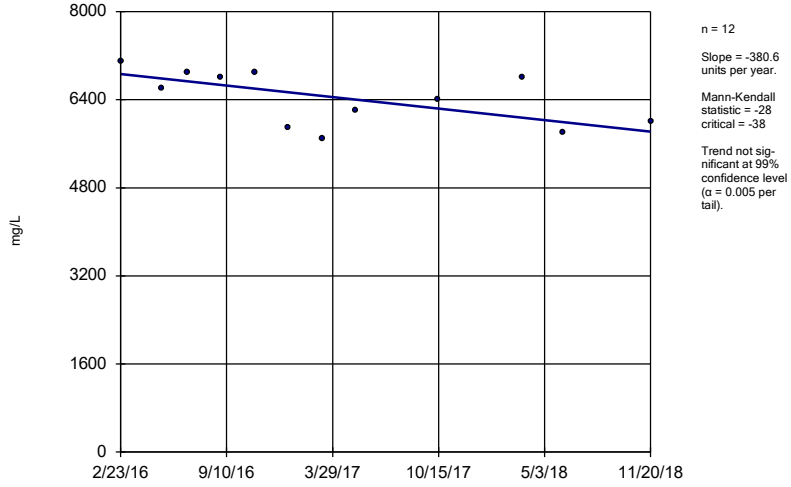
Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-10

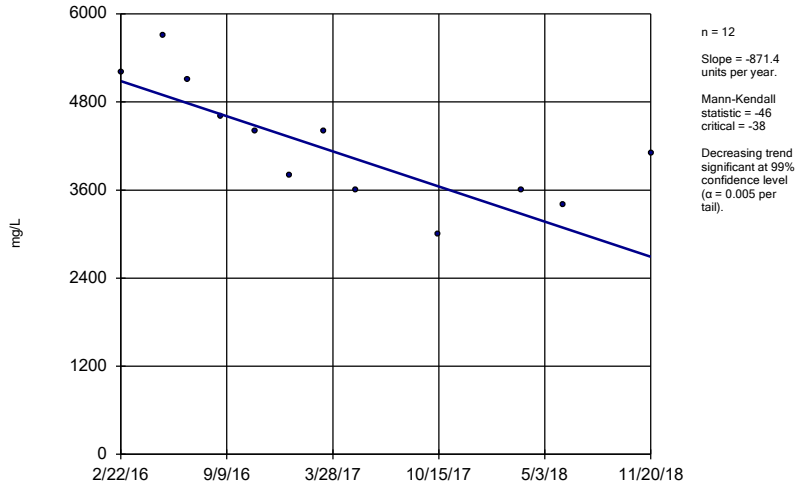


Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sen's Slope Estimator

MW-11



n = 12

Slope = -871.4 units per year.

Mann-Kendall statistic = -46
critical = -38

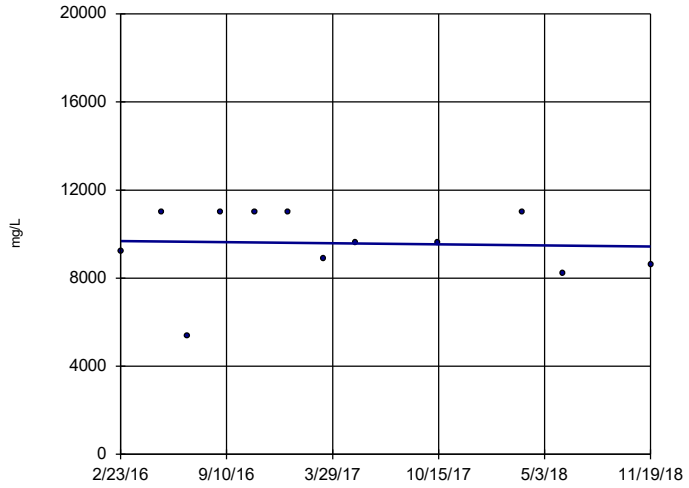
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-13



n = 12

Slope = -88.59 units per year.

Mann-Kendall statistic = -11
critical = -38

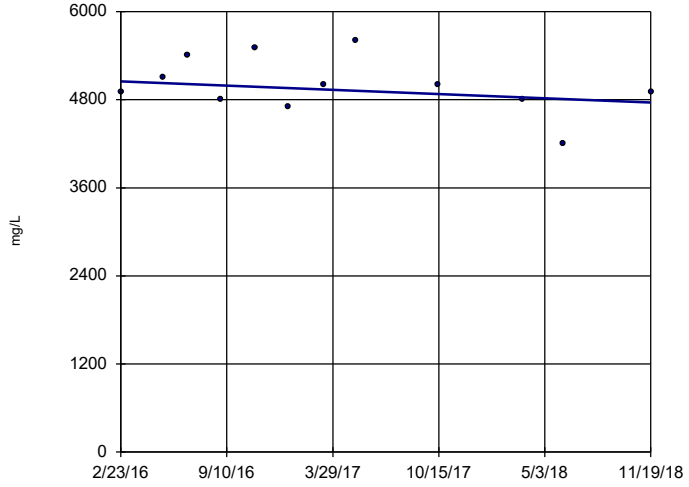
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-14



n = 12

Slope = -105.6 units per year.

Mann-Kendall statistic = -13
critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/8/2019 11:25 AM View: Trend Tests - PL Exceedances
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Confidence Intervals

Confidence Interval Summary Table - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:19 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**MW-11**	**0.02953**	**0.01975**	**0.01**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**34.66**	**23.81**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**27.5**	**19.3**	**5**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**43.33**	**34.98**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**29.59**	**16.88**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**26.44**	**20.29**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**32.95**	**24.18**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**17.55**	**11.43**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.783**	**6.081**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**MW-13**	**0.2398**	**0.1766**	**0.04**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - All Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:19 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-2 (bg)	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-3 (bg)	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-12 (bg)	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-6	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-7	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-8	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-9	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-10	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-11	0.0025	0.0013	0.006	No	9	55.56	No	0.002	NP (normality)
Antimony (mg/L)	MW-13	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	MW-14	0.0025	0.0025	0.006	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	MW-2 (bg)	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-3 (bg)	0.0013	0.00085	0.01	No	11	90.91	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-12 (bg)	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-6	0.001555	0.0008295	0.01	No	11	27.27	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001975	0.001033	0.01	No	11	27.27	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.0017	0.00097	0.01	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Arsenic (mg/L)	MW-9	0.003188	0.001975	0.01	No	11	9.091	No	0.01	Param.
Arsenic (mg/L)	MW-10	0.003453	0.002093	0.01	No	11	9.091	No	0.01	Param.
Arsenic (mg/L)	**MW-11**	**0.02953**	**0.01975**	**0.01**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	MW-13	0.002	0.00047	0.01	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Arsenic (mg/L)	MW-14	0.004627	0.002519	0.01	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-2 (bg)	0.02833	0.01822	2	No	11	9.091	No	0.01	Param.
Barium (mg/L)	MW-3 (bg)	0.022	0.016	2	No	11	9.091	No	0.006	NP (normality)
Barium (mg/L)	MW-12 (bg)	0.017	0.012	2	No	11	9.091	No	0.006	NP (normality)
Barium (mg/L)	MW-6	0.07414	0.05596	2	No	11	9.091	x^2	0.01	Param.
Barium (mg/L)	MW-7	0.071	0.029	2	No	11	9.091	No	0.006	NP (normality)
Barium (mg/L)	MW-8	0.07459	0.0545	2	No	11	9.091	x^2	0.01	Param.
Barium (mg/L)	MW-9	0.108	0.0685	2	No	11	9.091	No	0.01	Param.
Barium (mg/L)	MW-10	0.1213	0.1033	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-11	0.1297	0.07664	2	No	11	9.091	No	0.01	Param.
Barium (mg/L)	MW-13	0.1447	0.09818	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-14	0.06024	0.04674	2	No	11	9.091	x^2	0.01	Param.
Beryllium (mg/L)	MW-2 (bg)	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-3 (bg)	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-6	0.001959	0.0009663	0.004	No	11	9.091	No	0.01	Param.
Beryllium (mg/L)	MW-7	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-8	0.0016	0.0012	0.004	No	11	9.091	No	0.006	NP (normality)
Beryllium (mg/L)	MW-9	0.0025	0.00039	0.004	No	11	54.55	No	0.006	NP (normality)
Beryllium (mg/L)	MW-10	0.00061	0.00033	0.004	No	11	9.091	No	0.006	NP (normality)
Beryllium (mg/L)	MW-11	0.0025	0.00078	0.004	No	11	54.55	No	0.006	NP (normality)
Beryllium (mg/L)	MW-13	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-14	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-2 (bg)	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-3 (bg)	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-6	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-7	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-8	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-9	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-10	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-11	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-13	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	MW-14	0.0025	0.0025	0.005	No	9	100	No	0.002	NP (NDs)

Confidence Interval Summary Table - All Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:19 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Chromium (mg/L)	MW-2 (bg)	0.0033	0.0012	0.1	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Chromium (mg/L)	MW-3 (bg)	0.0049	0.0021	0.1	No	11	18.18	No	0.006	NP (normality)
Chromium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-6	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-7	0.0025	0.0011	0.1	No	11	54.55	No	0.006	NP (normality)
Chromium (mg/L)	MW-8	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-9	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-10	0.0025	0.0015	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-11	0.0087	0.0025	0.1	No	11	18.18	No	0.006	NP (normality)
Chromium (mg/L)	MW-13	0.0025	0.0024	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-14	0.0025	0.0012	0.1	No	11	81.82	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-2 (bg)	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-3 (bg)	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-12 (bg)	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-6	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-7	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-8	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-9	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-10	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-11	0.0025	0.00046	0.006	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-13	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-14	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	MW-2 (bg)	3.03	1.245	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-3 (bg)	1.923	1.345	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-12 (bg)	2.69	1.81	5	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**34.66**	**23.81**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**27.5**	**19.3**	**5**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**43.33**	**34.98**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**29.59**	**16.88**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**26.44**	**20.29**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**32.95**	**24.18**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**17.55**	**11.43**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.783**	**6.081**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-2 (bg)	0.2334	0.09989	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	MW-3 (bg)	0.1	0.04	4	No	12	66.67	No	0.01	NP (normality)
Fluoride (mg/L)	MW-12 (bg)	0.1148	0.08685	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	MW-6	0.1	0.04	4	No	12	25	No	0.01	NP (normality)
Fluoride (mg/L)	MW-7	0.1	0.04	4	No	12	66.67	No	0.01	NP (normality)
Fluoride (mg/L)	MW-8	0.1	0.1	4	No	12	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-9	0.1	0.04	4	No	12	33.33	No	0.01	NP (normality)
Fluoride (mg/L)	MW-10	0.1	0.04	4	No	12	58.33	No	0.01	NP (normality)
Fluoride (mg/L)	MW-11	0.1	0.05	4	No	12	83.33	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-13	0.1	0.04	4	No	12	8.333	No	0.01	NP (normality)
Fluoride (mg/L)	MW-14	0.07479	0.04321	4	No	12	8.333	No	0.01	Param.
Lead (mg/L)	MW-2 (bg)	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-3 (bg)	0.0013	0.00039	0.015	No	9	77.78	No	0.002	NP (NDs)
Lead (mg/L)	MW-12 (bg)	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-6	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-7	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-8	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-9	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-10	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-11	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-13	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	MW-14	0.0013	0.0013	0.015	No	9	100	No	0.002	NP (NDs)

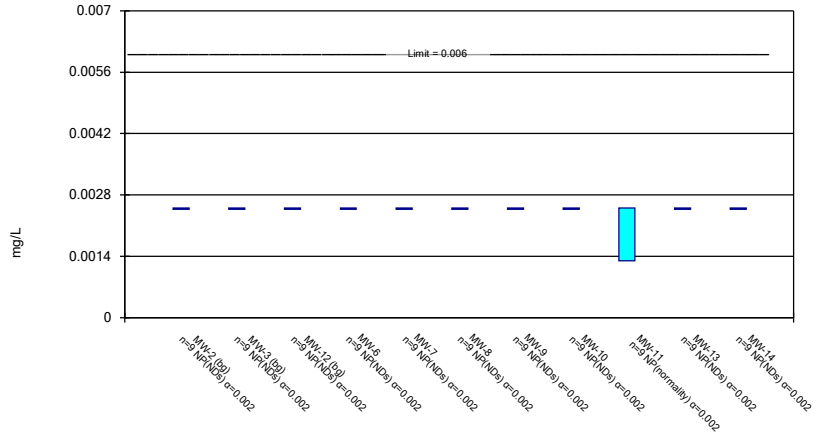
Confidence Interval Summary Table - All Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 2/8/2019, 11:19 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	MW-2 (bg)	0.00819	0.00232	0.04	No	11	36.36	No	0.01	Param.
Lithium (mg/L)	MW-3 (bg)	0.01384	0.00918	0.04	No	11	9.091	No	0.01	Param.
Lithium (mg/L)	MW-12 (bg)	0.01559	0.007898	0.04	No	11	9.091	sqrt(x)	0.01	Param.
Lithium (mg/L)	MW-6	0.02229	0.009841	0.04	No	11	9.091	No	0.01	Param.
Lithium (mg/L)	MW-7	0.005	0.0018	0.04	No	11	72.73	No	0.006	NP (normality)
Lithium (mg/L)	MW-8	0.0106	0.00511	0.04	No	11	18.18	No	0.01	Param.
Lithium (mg/L)	MW-9	0.008759	0.003151	0.04	No	11	9.091	sqrt(x)	0.01	Param.
Lithium (mg/L)	MW-10	0.006464	0.004644	0.04	No	11	18.18	No	0.01	Param.
Lithium (mg/L)	MW-11	0.011	0.0038	0.04	No	11	63.64	No	0.006	NP (normality)
Lithium (mg/L)	**MW-13**	**0.2398**	**0.1766**	**0.04**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Lithium (mg/L)	MW-14	0.005	0.0013	0.04	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-2 (bg)	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-3 (bg)	0.0002	0.000071	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	MW-12 (bg)	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-6	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-7	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-8	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-9	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-10	0.0002	0.000089	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	MW-11	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-13	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	MW-14	0.0002	0.0002	0.002	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	MW-2 (bg)	0.015	0.0009	0.1	No	11	81.82	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-3 (bg)	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-12 (bg)	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-6	0.015	0.0011	0.1	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-7	0.015	0.0042	0.1	No	11	36.36	No	0.006	NP (normality)
Molybdenum (mg/L)	MW-8	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-9	0.015	0.0014	0.1	No	11	72.73	No	0.006	NP (normality)
Molybdenum (mg/L)	MW-10	0.015	0.00097	0.1	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Molybdenum (mg/L)	MW-11	0.01584	0.009692	0.1	No	11	9.091	No	0.01	Param.
Molybdenum (mg/L)	MW-13	0.03235	0.01252	0.1	No	11	9.091	No	0.01	Param.
Molybdenum (mg/L)	MW-14	0.01771	0.01289	0.1	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-2 (bg)	0.0013	0.00038	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	MW-3 (bg)	0.0013	0.0003	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	MW-12 (bg)	0.0013	0.0013	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	MW-6	0.0013	0.00025	0.05	No	11	63.64	No	0.006	NP (normality)
Selenium (mg/L)	MW-7	0.0013	0.00028	0.05	No	11	63.64	No	0.006	NP (normality)
Selenium (mg/L)	MW-8	0.0013	0.0003	0.05	No	11	63.64	No	0.006	NP (normality)
Selenium (mg/L)	MW-9	0.0013	0.00033	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	MW-10	0.0013	0.00025	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	MW-11	0.0013	0.00046	0.05	No	11	54.55	No	0.006	NP (normality)
Selenium (mg/L)	MW-13	0.0013	0.00031	0.05	No	11	72.73	No	0.006	NP (normality)
Selenium (mg/L)	MW-14	0.0013	0.00024	0.05	No	11	81.82	No	0.006	NP (NDs)
Thallium (mg/L)	MW-2 (bg)	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-3 (bg)	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-12 (bg)	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-6	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-7	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-8	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-9	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-10	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-11	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-13	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	MW-14	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

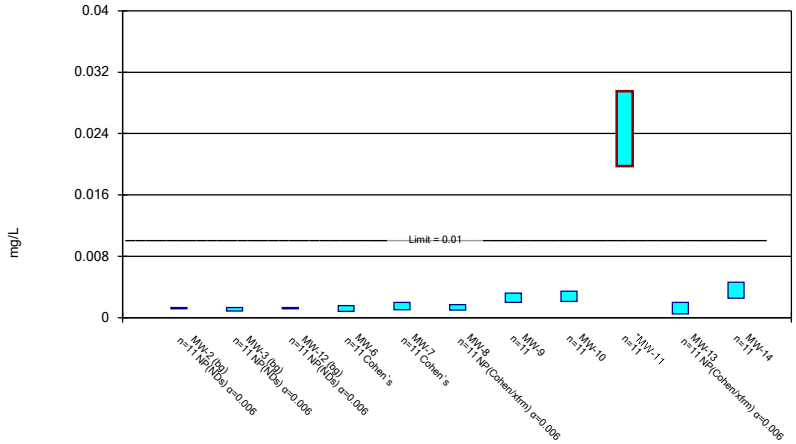


Constituent: Antimony Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

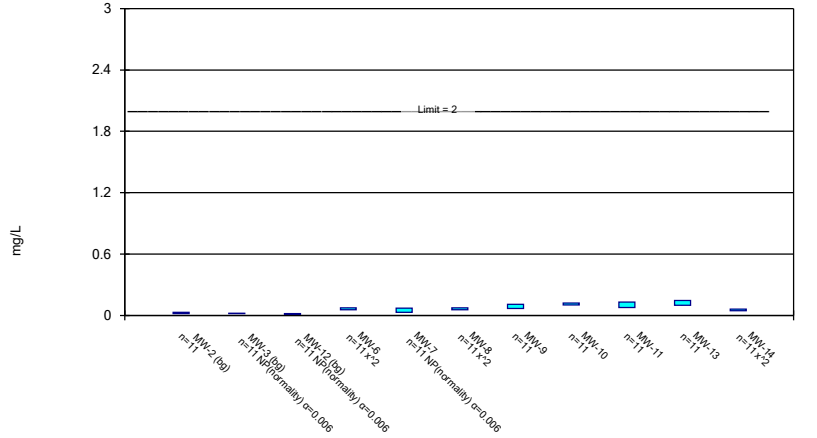


Constituent: Arsenic Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

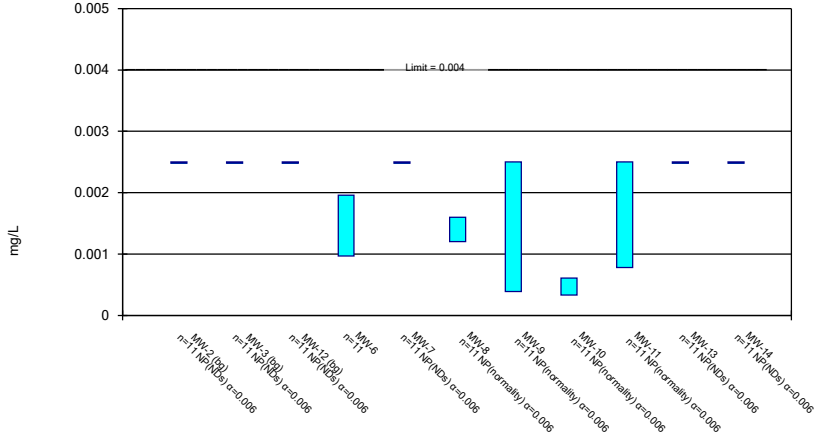


Constituent: Barium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

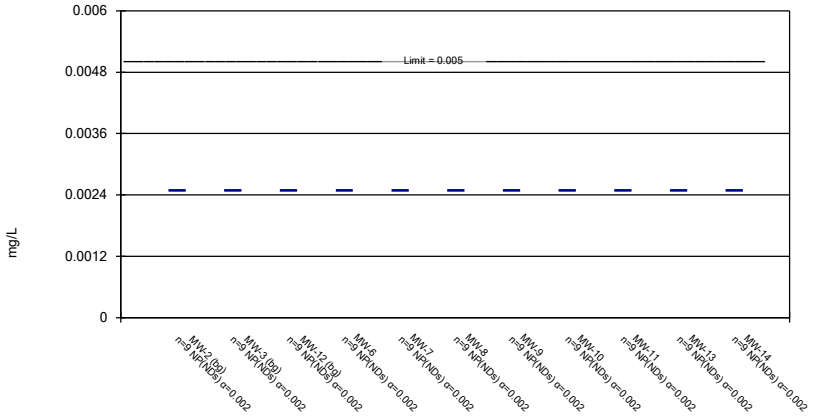
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

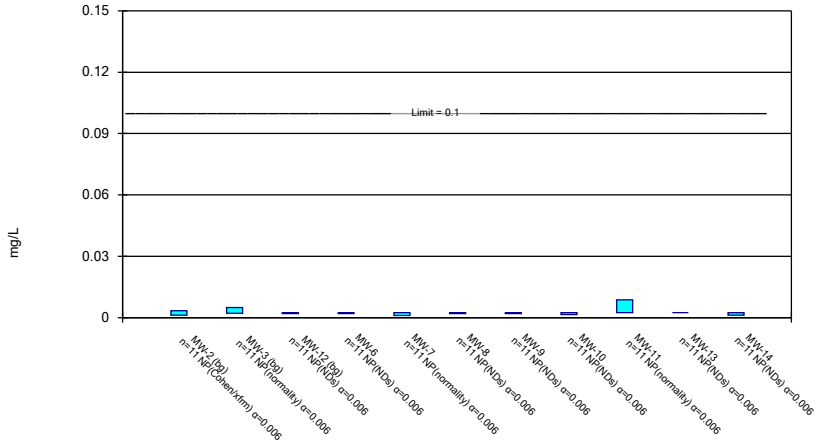


Constituent: Cadmium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

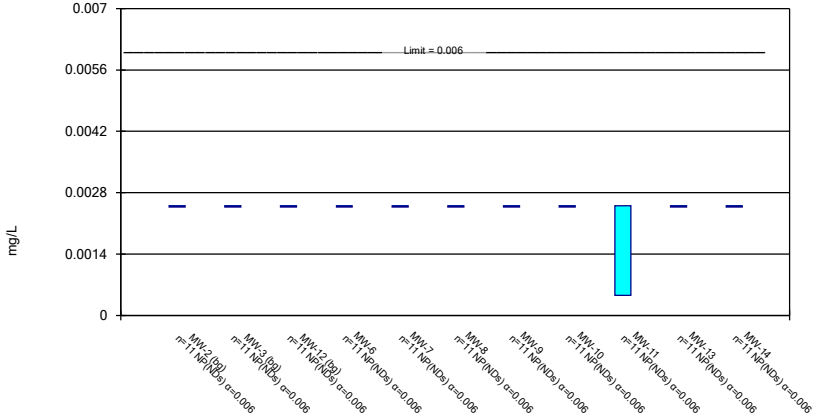


Constituent: Chromium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

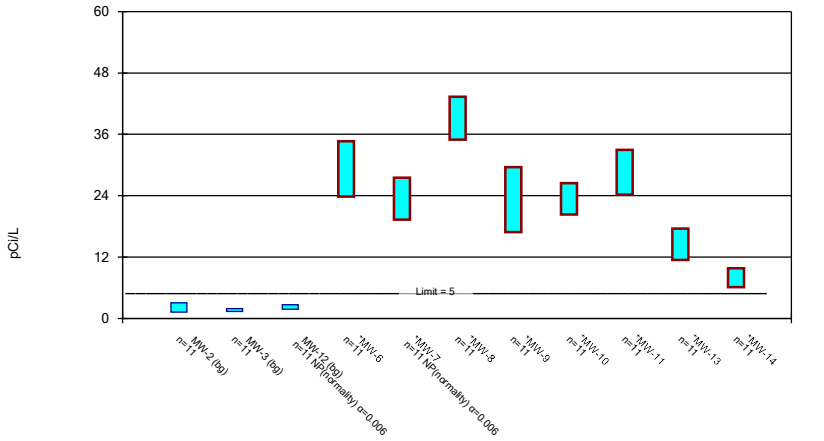


Constituent: Cobalt Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

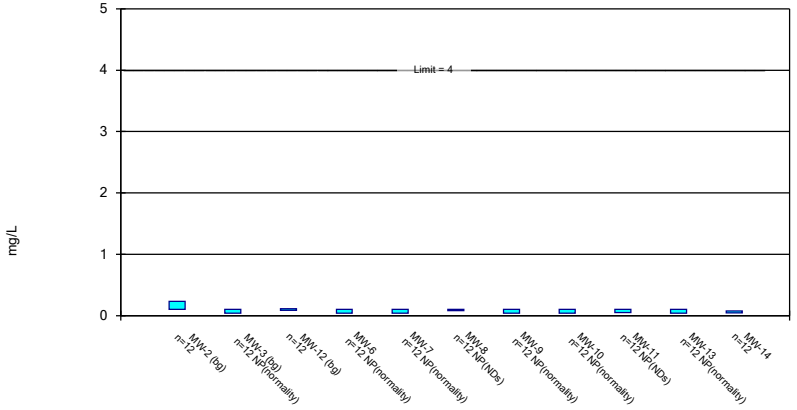
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals -
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



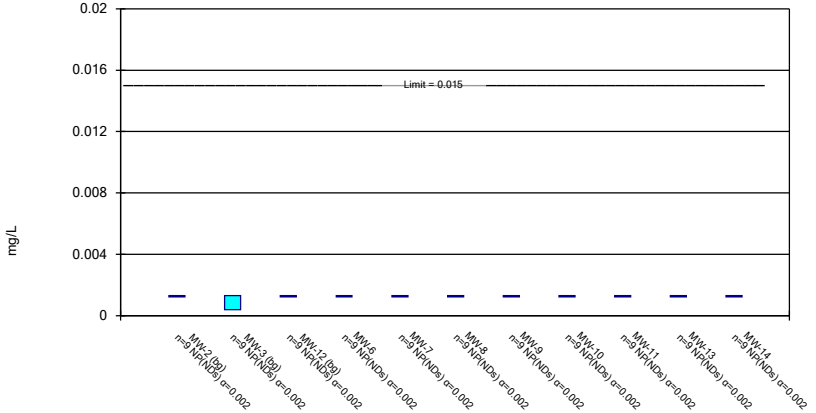
Constituent: Fluoride Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



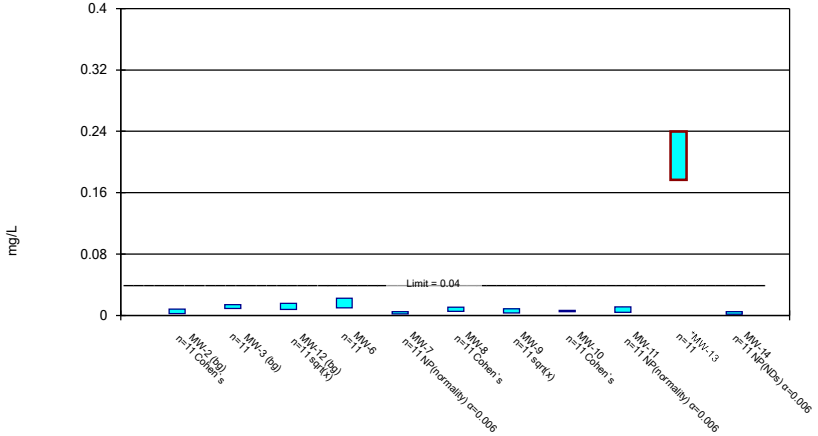
Constituent: Lead Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



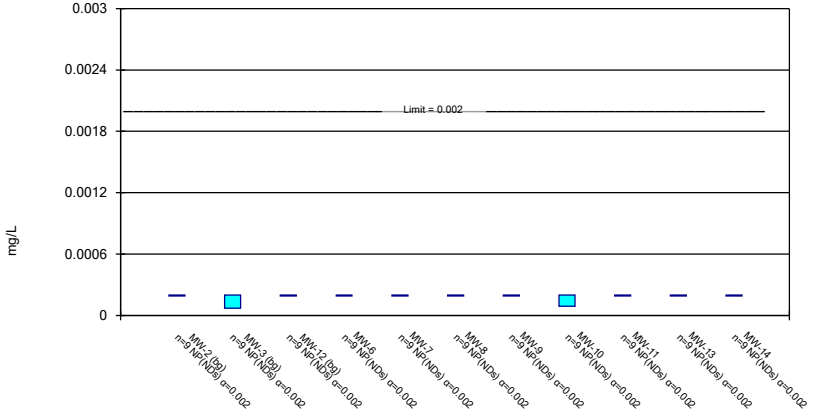
Constituent: Lithium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

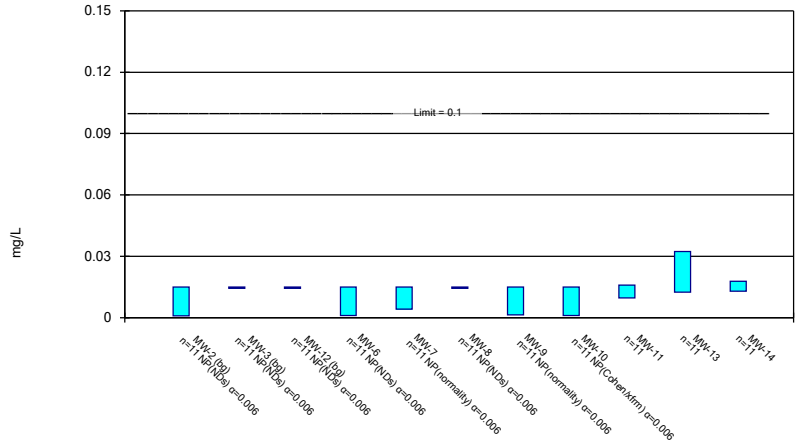


Constituent: Mercury Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



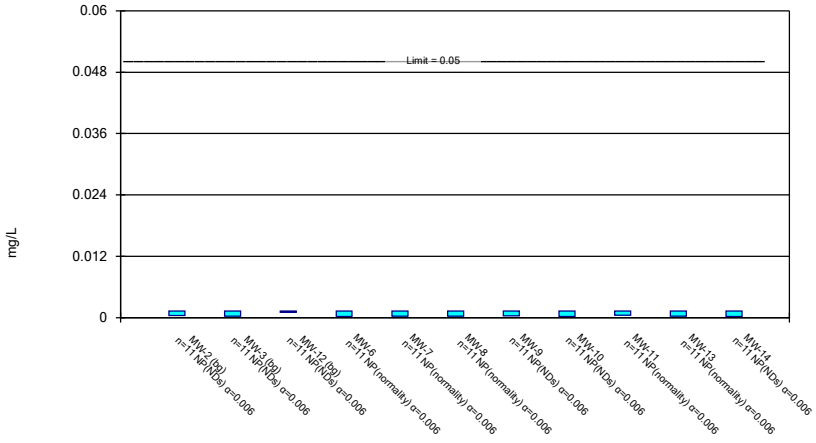
Constituent: Molybdenum Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



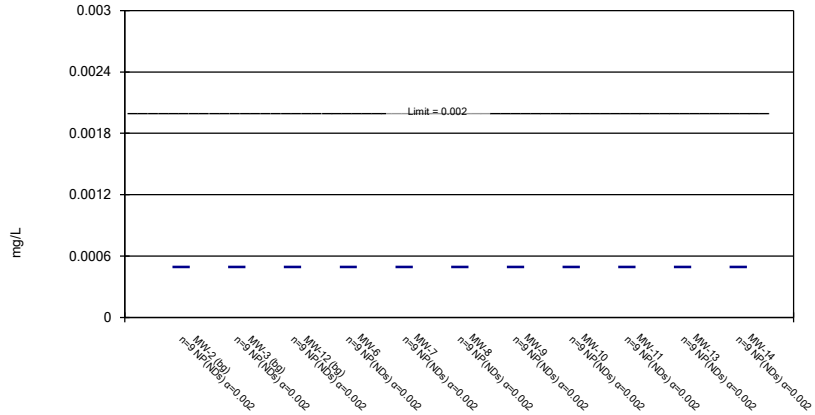
Constituent: Selenium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



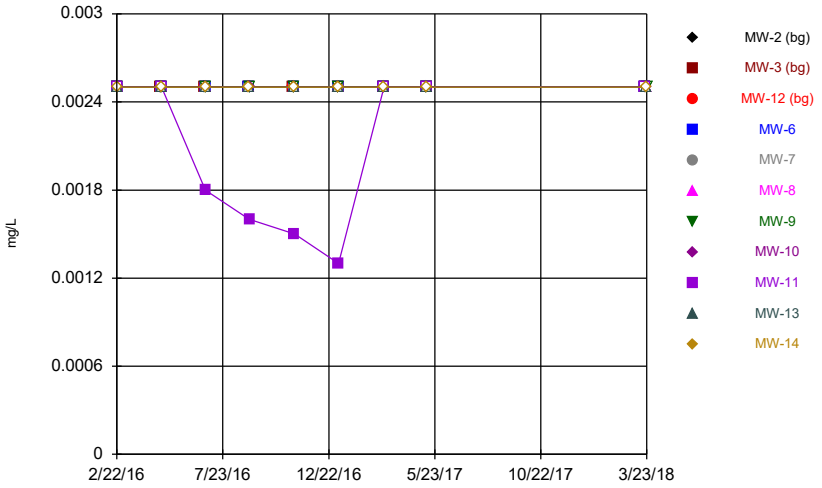
Constituent: Thallium Analysis Run 2/8/2019 11:17 AM View: Confidence Intervals - App IV

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

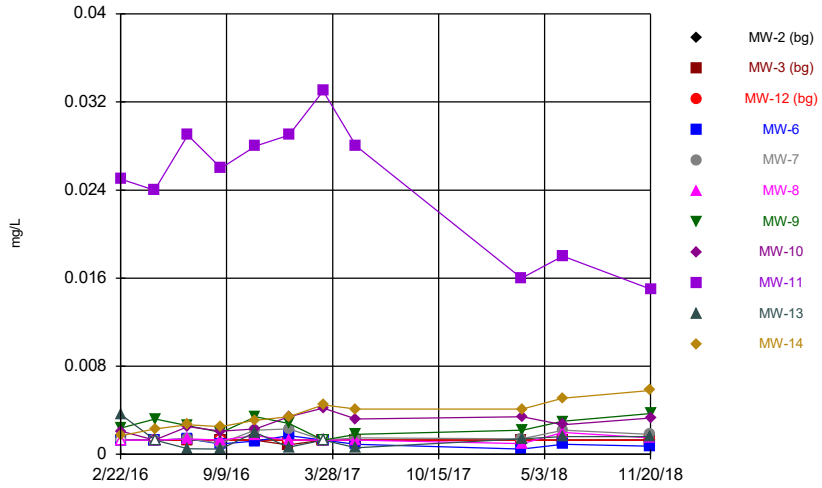
Time Series



Constituent: Antimony Analysis Run 2/11/2019 10:50 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

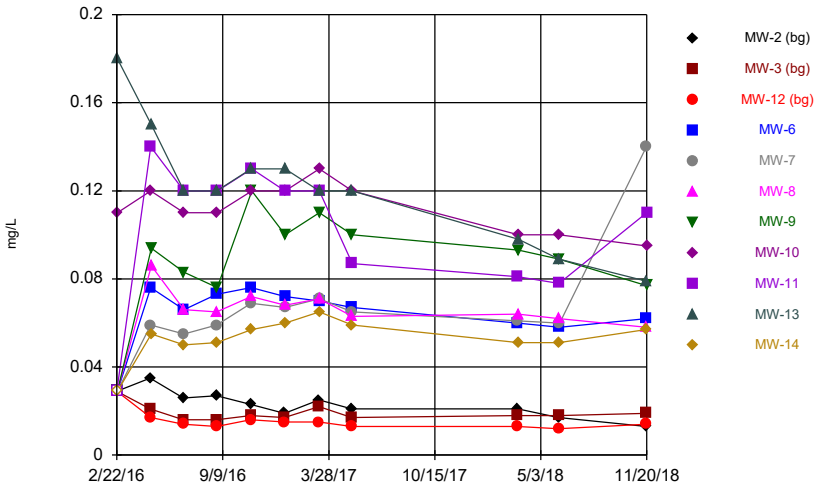
Time Series



Constituent: Arsenic Analysis Run 2/11/2019 10:50 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

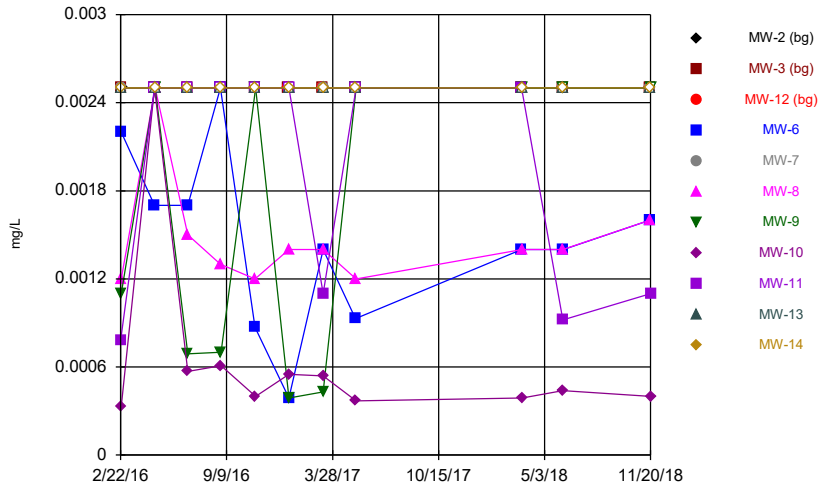
Time Series



Constituent: Barium Analysis Run 2/11/2019 10:50 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 2/11/2019 10:50 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0025	<0.0025	<0.0025						<0.0025
2/23/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
4/25/2016	<0.0025	<0.0025							
4/26/2016			<0.0025	<0.0025	<0.0025			<0.0025	<0.0025
4/27/2016						<0.0025	<0.0025		
6/27/2016	<0.0025	<0.0025	<0.0025						
6/28/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0018 (J)
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			
8/30/2016							<0.0025	<0.0025	0.0016 (J)
11/1/2016	<0.0025	<0.0025	<0.0025						
11/2/2016				<0.0025	<0.0025	<0.0025			
11/3/2016							<0.0025	<0.0025	0.0015 (J)
1/4/2017	<0.0025	<0.0025	<0.0025						
1/5/2017				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0013 (J)
3/10/2017	<0.0025	<0.0025	<0.0025						
3/11/2017				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025 (*)
5/11/2017	<0.0025	<0.0025	<0.0025	<0.0025					
5/12/2017					<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/20/2018		<0.0025	<0.0025						
3/21/2018	<0.0025			<0.0025	<0.0025				<0.0025
3/22/2018						<0.0025		<0.0025	
3/23/2018							<0.0025		

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0025	<0.0025
4/25/2016		
4/26/2016		
4/27/2016	<0.0025	<0.0025
6/27/2016		
6/28/2016	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025
8/30/2016		
11/1/2016		
11/2/2016	<0.0025	
11/3/2016		<0.0025
1/4/2017		
1/5/2017	<0.0025	<0.0025
3/10/2017		
3/11/2017	<0.0025	<0.0025
5/11/2017		
5/12/2017	<0.0025	<0.0025
3/20/2018		
3/21/2018		
3/22/2018	<0.0025	<0.0025
3/23/2018		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0013	<0.0013	<0.0013						0.025
2/23/2016				<0.0013	<0.0013	<0.0013	0.0024 (J)	0.0021 (J)	
4/25/2016	<0.0013	<0.0013							
4/26/2016			<0.0013	<0.0013	<0.0013			<0.0013	0.024
4/27/2016						<0.0013	0.0032 (J)		
6/27/2016	<0.0013	<0.0013	<0.0013						
6/28/2016				0.0014	0.0014	0.0014	0.0026	0.0025	0.029
8/29/2016	<0.0013	<0.0013	<0.0013	0.00095 (J)	0.001 (J)	0.0013			
8/30/2016							0.002	0.0021	0.026
11/1/2016	<0.0013	<0.0013	<0.0013						
11/2/2016				0.0012 (J)	0.0022	0.0017			
11/3/2016							0.0034	0.0023	0.028
1/4/2017	<0.0013	0.00085 (J)	<0.0013						
1/5/2017				0.0017	0.0023	0.0013	0.0028	0.0034	0.029
3/10/2017	<0.0013 (*)	<0.0013	<0.0013						
3/11/2017				<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	0.0042	0.033
5/11/2017	<0.0013	<0.0013	<0.0013	0.0009 (J)					
5/12/2017					0.0015	0.0013	0.0018	0.0032	0.028
3/20/2018		<0.0013	<0.0013						
3/21/2018	<0.0013			0.00048 (J)	0.0014				0.016
3/22/2018						0.00097 (J)		0.0034	
3/23/2018							0.0022		
6/6/2018	<0.0013	<0.0013	<0.0013						
6/7/2018						0.002	0.003	0.0027	0.018
6/8/2018				0.0009 (J)	0.0022				
11/19/2018	<0.0013	<0.0013	<0.0013	0.00075 (J)	0.0018	0.0015			
11/20/2018							0.0037	0.0033	0.015

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	0.0036 (J)	0.0017 (J)
4/25/2016		
4/26/2016		
4/27/2016	<0.0013	0.0023 (J)
6/27/2016		
6/28/2016	0.00051 (J)	0.0027
8/29/2016	0.00047 (J)	0.0025
8/30/2016		
11/1/2016		
11/2/2016	0.002	
11/3/2016		0.0031
1/4/2017		
1/5/2017	0.00066 (J)	0.0034
3/10/2017		
3/11/2017	<0.0013 (*)	0.0045
5/11/2017		
5/12/2017	0.0006 (J)	0.0041
3/20/2018		
3/21/2018		
3/22/2018	0.0014	0.0041
3/23/2018		
6/6/2018		
6/7/2018	0.0016	0.0051
6/8/2018		
11/19/2018	0.0016	0.0058
11/20/2018		

Time Series

Constituent: Barium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.058 (*)	<0.058 (*)	<0.058 (*)						<0.058 (*)
2/23/2016				<0.058 (*)	<0.058 (*)	<0.058 (*)	<0.058 (*)	0.11	
4/25/2016	0.035	0.021							
4/26/2016			0.017	0.076	0.059			0.12	0.14
4/27/2016						0.086	0.094		
6/27/2016	0.026	0.016	0.014						
6/28/2016				0.066	0.055	0.066	0.083	0.11	0.12
8/29/2016	0.027	0.016	0.013	0.073	0.059	0.065			
8/30/2016							0.076	0.11	0.12
11/1/2016	0.023	0.018	0.016						
11/2/2016				0.076	0.069	0.072			
11/3/2016							0.12	0.12	0.13
1/4/2017	0.019	0.017	0.015						
1/5/2017				0.072	0.067	0.068	0.1	0.12	0.12
3/10/2017	0.025	0.022	0.015						
3/11/2017				0.07	0.071	0.071	0.11	0.13	0.12
5/11/2017	0.021	0.017	0.013	0.067					
5/12/2017					0.065	0.063	0.1	0.12	0.087
3/20/2018		0.018	0.013						
3/21/2018	0.021			0.06	0.061				0.081
3/22/2018						0.064		0.1	
3/23/2018							0.093		
6/6/2018	0.017	0.018	0.012						
6/7/2018						0.062	0.089	0.1	0.078
6/8/2018				0.058	0.06				
11/19/2018	0.013	0.019	0.014	0.062	0.14	0.058			
11/20/2018							0.077	0.095	0.11

Time Series

Constituent: Barium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	0.18	<0.058 (*)
4/25/2016		
4/26/2016		
4/27/2016	0.15	0.055
6/27/2016		
6/28/2016	0.12	0.05
8/29/2016	0.12	0.051
8/30/2016		
11/1/2016		
11/2/2016	0.13	
11/3/2016		0.057
1/4/2017		
1/5/2017	0.13	0.06
3/10/2017		
3/11/2017	0.12	0.065
5/11/2017		
5/12/2017	0.12	0.059
3/20/2018		
3/21/2018		
3/22/2018	0.098	0.051
3/23/2018		
6/6/2018		
6/7/2018	0.089	0.051
6/8/2018		
11/19/2018	0.079	0.057
11/20/2018		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016		<0.0025	<0.0025						0.00078 (J)
2/23/2016				0.0022 (J)	<0.0025	0.0012 (J)	0.0011 (J)	0.00033 (J)	
2/26/2016	<0.0025								
4/25/2016	<0.0025	<0.0025							
4/26/2016			<0.0025	0.0017 (J)	<0.0025			<0.0025	<0.0025
4/27/2016						<0.0025	<0.0025		
6/27/2016	<0.0025	<0.0025	<0.0025						
6/28/2016				0.0017 (J)	<0.0025	0.0015 (J)	0.00069 (J)	0.00057 (J)	<0.0025
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0013 (J)			
8/30/2016							0.0007 (J)	0.00061 (J)	<0.0025
11/1/2016	<0.0025	<0.0025	<0.0025						
11/2/2016				0.00087 (J)	<0.0025	0.0012 (J)			
11/3/2016							<0.0025	0.0004 (J)	<0.0025
1/4/2017	<0.0025	<0.0025	<0.0025						
1/5/2017				0.00039 (J)	<0.0025	0.0014 (J)	0.00039 (J)	0.00055 (J)	<0.0025
3/10/2017	<0.0025	<0.0025	<0.0025						
3/11/2017				0.0014 (J)	<0.0025	0.0014 (J)	0.00043 (J)	0.00054 (J)	0.0011 (J)
5/11/2017	<0.0025	<0.0025	<0.0025	0.00093 (J)					
5/12/2017					<0.0025	0.0012 (J)	<0.0025	0.00037 (J)	<0.0025
3/20/2018		<0.0025	<0.0025						
3/21/2018	<0.0025			0.0014 (J)	<0.0025				0.0025
3/22/2018						0.0014 (J)		0.00039 (J)	
3/23/2018							<0.0025		
6/6/2018	<0.0025	<0.0025	<0.0025						
6/7/2018						0.0014 (J)	<0.0025	0.00044 (J)	0.00092 (J)
6/8/2018				0.0014 (J)	<0.0025				
11/19/2018	<0.0025	<0.0025	<0.0025	0.0016 (J)	<0.0025	0.0016 (J)			
11/20/2018							<0.0025	0.0004 (J)	0.0011 (J)

Time Series

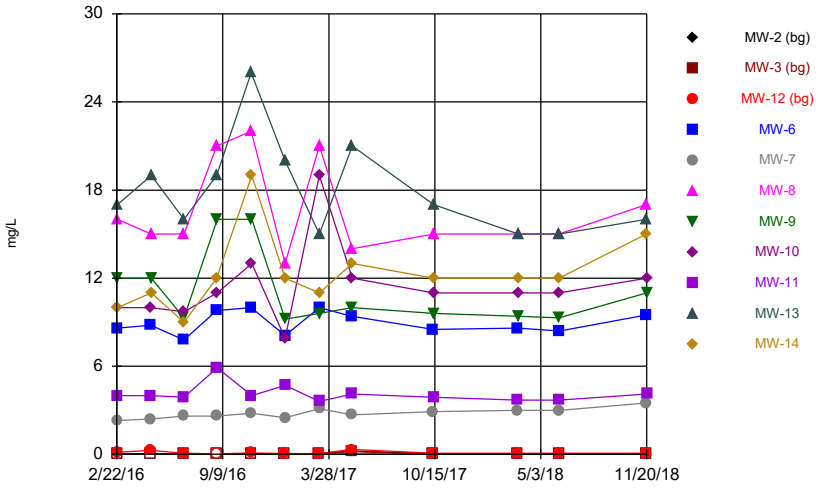
Constituent: Beryllium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0025	<0.0025
2/26/2016		
4/25/2016		
4/26/2016		
4/27/2016	<0.0025	<0.0025
6/27/2016		
6/28/2016	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025
8/30/2016		
11/1/2016		
11/2/2016	<0.0025	
11/3/2016		<0.0025
1/4/2017		
1/5/2017	<0.0025	<0.0025
3/10/2017		
3/11/2017	<0.0025	<0.0025
5/11/2017		
5/12/2017	<0.0025	<0.0025
3/20/2018		
3/21/2018		
3/22/2018	<0.0025	<0.0025
3/23/2018		
6/6/2018		
6/7/2018	<0.0025	<0.0025
6/8/2018		
11/19/2018	<0.0025	<0.0025
11/20/2018		

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

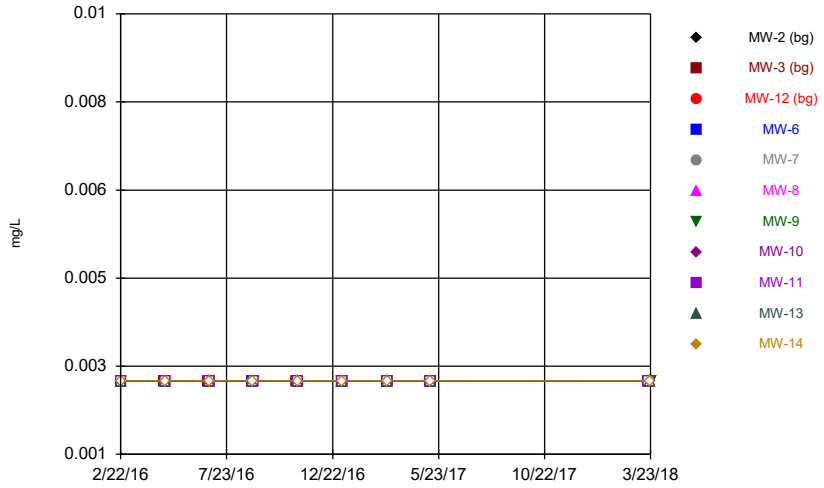
Time Series



Constituent: Boron Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

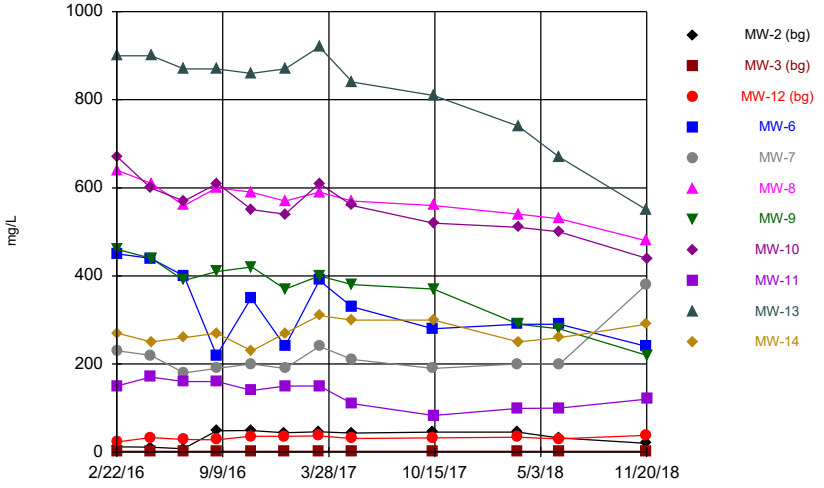
Time Series



Constituent: Cadmium Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

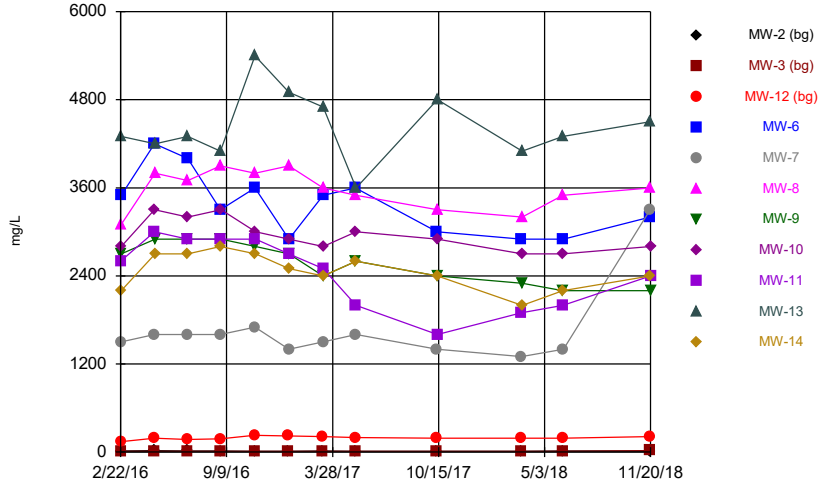
Time Series



Constituent: Calcium Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



Constituent: Chloride Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.05	<0.05	0.14 (J)						4
2/23/2016				8.6	2.3	16	12	10	
4/25/2016	0.022 (J)	<0.05							
4/26/2016			0.27	8.8	2.4			10	4
4/27/2016						15	12		
6/27/2016	0.032 (J)	<0.05	0.083						
6/28/2016				7.8	2.6	15	9.3	9.7	3.9
8/29/2016	<0.05 (*)	<0.05	<0.05 (*)	9.8	2.6	21			
8/30/2016							16	11	5.9
11/1/2016	<0.05	<0.05	0.1						
11/2/2016				10	2.8	22			
11/3/2016							16	13	4
1/4/2017	<0.05	<0.05	0.062						
1/5/2017				8.1	2.5	13	9.2	7.9	4.7
3/10/2017	0.032 (J)	<0.05	0.06						
3/11/2017				10	3.1	21	9.6	19	3.6
5/11/2017	0.23	0.18	0.33	9.4					
5/12/2017					2.7	14	10	12	4.1
10/12/2017	<0.05	<0.05	0.082	8.5	2.9				
10/13/2017						15	9.6	11	3.9
3/20/2018		<0.05	0.072						
3/21/2018	<0.05			8.6	3				3.7
3/22/2018						15		11	
3/23/2018							9.4		
6/6/2018	0.027 (J)	<0.05	0.077						
6/7/2018						15	9.3	11	3.7
6/8/2018				8.4	3				
11/19/2018	0.045 (J)	<0.05	0.071	9.5	3.5	17			
11/20/2018							11	12	4.1

Time Series

Constituent: Boron (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	17	10
4/25/2016		
4/26/2016		
4/27/2016	19	11
6/27/2016		
6/28/2016	16	9
8/29/2016	19	12
8/30/2016		
11/1/2016		
11/2/2016	26	
11/3/2016		19
1/4/2017		
1/5/2017	20	12
3/10/2017		
3/11/2017	15	11
5/11/2017		
5/12/2017	21	13
10/12/2017		
10/13/2017	17	12
3/20/2018		
3/21/2018		
3/22/2018	15	12
3/23/2018		
6/6/2018		
6/7/2018	15	12
6/8/2018		
11/19/2018	16	15
11/20/2018		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0025	<0.0025	<0.0025						<0.0025
2/23/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
4/25/2016	<0.0025	<0.0025							
4/26/2016			<0.0025	<0.0025	<0.0025			<0.0025	<0.0025
4/27/2016						<0.0025	<0.0025		
6/27/2016	<0.0025	<0.0025	<0.0025						
6/28/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			
8/30/2016							<0.0025	<0.0025	<0.0025
11/1/2016	<0.0025	<0.0025	<0.0025						
11/2/2016				<0.0025	<0.0025	<0.0025			
11/3/2016							<0.0025	<0.0025	<0.0025
1/4/2017	<0.0025	<0.0025	<0.0025						
1/5/2017				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/10/2017	<0.0025	<0.0025	<0.0025						
3/11/2017				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
5/11/2017	<0.0025	<0.0025	<0.0025	<0.0025					
5/12/2017					<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/20/2018		<0.0025	<0.0025						
3/21/2018	<0.0025			<0.0025	<0.0025				<0.0025
3/22/2018						<0.0025		<0.0025	
3/23/2018							<0.0025		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0025	<0.0025
4/25/2016		
4/26/2016		
4/27/2016	<0.0025	<0.0025
6/27/2016		
6/28/2016	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025
8/30/2016		
11/1/2016		
11/2/2016	<0.0025	
11/3/2016		<0.0025
1/4/2017		
1/5/2017	<0.0025	<0.0025
3/10/2017		
3/11/2017	<0.0025	<0.0025
5/11/2017		
5/12/2017	<0.0025	<0.0025
3/20/2018		
3/21/2018		
3/22/2018	<0.0025	<0.0025
3/23/2018		

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	12	1.9	23						150
2/23/2016				450	230	640	460	670	
4/25/2016	11	1.8							
4/26/2016			33	440	220			600	170
4/27/2016						610	440		
6/27/2016	7.7	1.7	29						
6/28/2016				400	180	560	390	570	160
8/29/2016	48	1.7	28	220	190	600			
8/30/2016							410	610	160
11/1/2016	49	1.9	36						
11/2/2016				350	200	590			
11/3/2016							420	550	140
1/4/2017	44	1.8	36						
1/5/2017				240	190	570	370	540	150
3/10/2017	46	1.9	37						
3/11/2017				390	240	590	400	610	150
5/11/2017	43	1.7	31	330					
5/12/2017					210	570	380	560	110
10/12/2017	45	1.9	32	280	190				
10/13/2017						560	370	520	83
3/20/2018		1.9	34						
3/21/2018	45			290	200				99
3/22/2018						540		510	
3/23/2018							290		
6/6/2018	32	1.8	30						
6/7/2018						530	280	500	100
6/8/2018				290	200				
11/19/2018	20	1.8	38	240	380	480			
11/20/2018							220	440	120

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	900	270
4/25/2016		
4/26/2016		
4/27/2016	900	250
6/27/2016		
6/28/2016	870	260
8/29/2016	870	270
8/30/2016		
11/1/2016		
11/2/2016	860	
11/3/2016		230
1/4/2017		
1/5/2017	870	270
3/10/2017		
3/11/2017	920	310
5/11/2017		
5/12/2017	840	300
10/12/2017		
10/13/2017	810	300
3/20/2018		
3/21/2018		
3/22/2018	740	250
3/23/2018		
6/6/2018		
6/7/2018	670	260
6/8/2018		
11/19/2018	550	290
11/20/2018		

Time Series

Constituent: Chloride (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	15	11	140						2600
2/23/2016				3500	1500	3100	2700	2800	
4/25/2016	18	10							
4/26/2016			190	4200	1600			3300	3000
4/27/2016						3800	2900		
6/27/2016	17	11	170						
6/28/2016				4000	1600	3700	2900	3200	2900
8/29/2016	16	11	180	3300	1600	3900			
8/30/2016							2900	3300	2900
11/1/2016	11	11	230						
11/2/2016				3600	1700	3800			
11/3/2016							2800	3000	2900
1/4/2017	11	11	220						
1/5/2017				2900	1400	3900	2700	2900	2700
3/10/2017	14	11	210						
3/11/2017				3500	1500	3600	2400	2800	2500
5/11/2017	11	12	200	3600					
5/12/2017					1600	3500	2600	3000	2000
10/12/2017	12	12	190	3000	1400				
10/13/2017						3300	2400	2900	1600
3/20/2018		11	190						
3/21/2018	9.3			2900	1300				1900
3/22/2018						3200		2700	
3/23/2018							2300		
6/6/2018	13	11	190						
6/7/2018						3500	2200	2700	2000
6/8/2018				2900	1400				
11/19/2018	13	19.9 (D)	210	3200	3300	3600			
11/20/2018							2200	2800	2400

Time Series

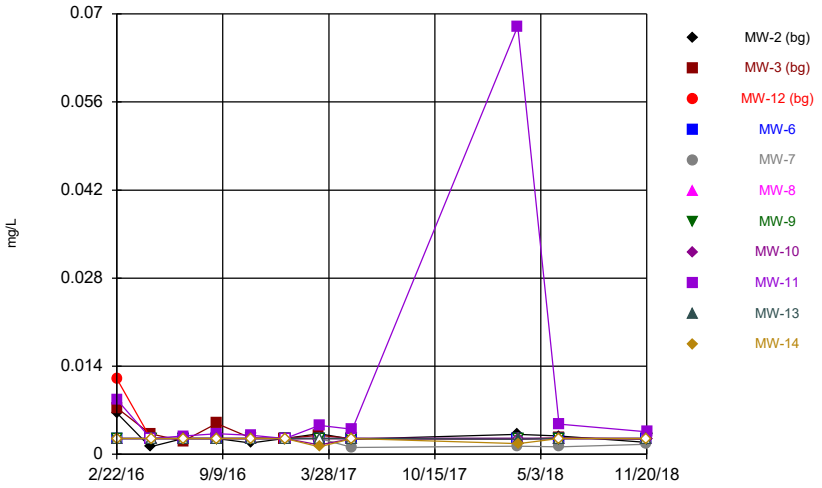
Constituent: Chloride (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	4300	2200
4/25/2016		
4/26/2016		
4/27/2016	4200	2700
6/27/2016		
6/28/2016	4300	2700
8/29/2016	4100	2800
8/30/2016		
11/1/2016		
11/2/2016	5400	
11/3/2016		2700
1/4/2017		
1/5/2017	4900	2500
3/10/2017		
3/11/2017	4700	2400
5/11/2017		
5/12/2017	3600	2600
10/12/2017		
10/13/2017	4800	2400
3/20/2018		
3/21/2018		
3/22/2018	4100	2000
3/23/2018		
6/6/2018		
6/7/2018	4300	2200
6/8/2018		
11/19/2018	4500	2400
11/20/2018		

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

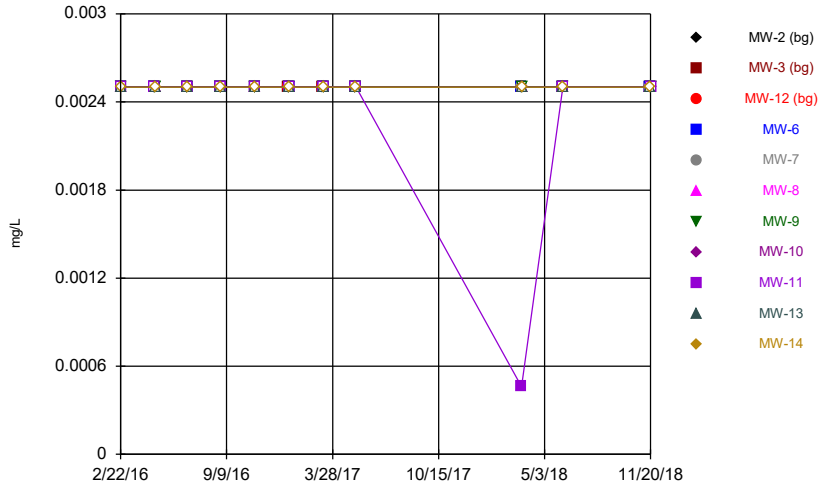
Time Series



Constituent: Chromium Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

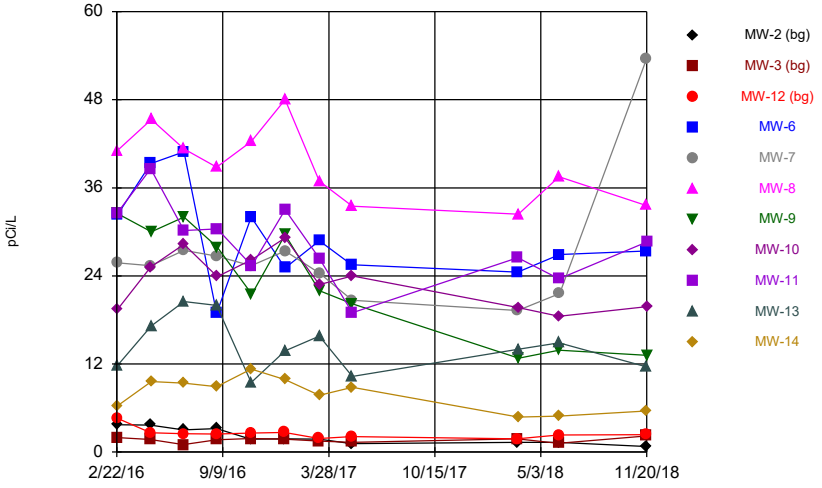
Time Series



Constituent: Cobalt Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

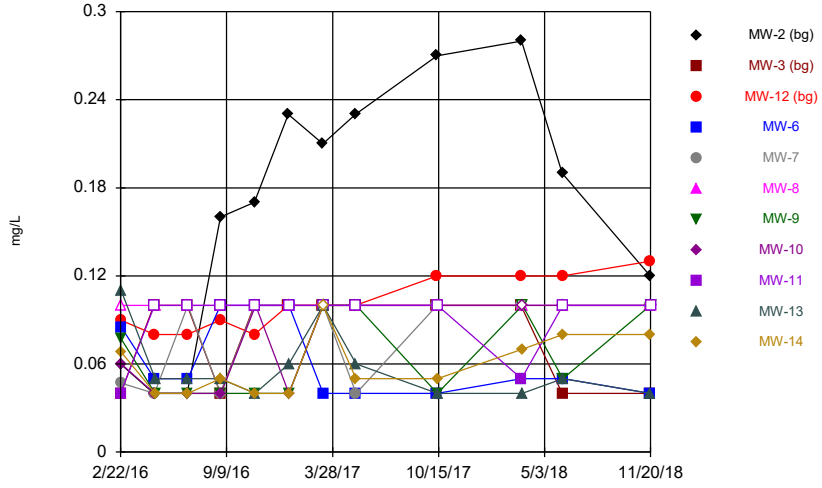
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	0.0066 (JV)	0.0074 (J)	0.012 (J)						0.0087 (J)
2/23/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
4/25/2016	0.0012 (J)	0.0033							
4/26/2016			<0.0025	<0.0025	<0.0025			<0.0025	<0.0025
4/27/2016						<0.0025	<0.0025		
6/27/2016	<0.0025	0.0021 (J)	<0.0025						
6/28/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0029
8/29/2016	<0.0025	0.0049	<0.0025	<0.0025	<0.0025	<0.0025			
8/30/2016							<0.0025	<0.0025	0.0033
11/1/2016	0.0018 (J)	0.0026	<0.0025						
11/2/2016				<0.0025	<0.0025	<0.0025			
11/3/2016							<0.0025	<0.0025	0.003
1/4/2017	<0.0025 (*)	<0.0025 (*)	<0.0025						
1/5/2017				<0.0025	<0.0025 (*)	<0.0025	<0.0025	<0.0025	<0.0025 (*)
3/10/2017	0.0033	0.003	<0.0025						
3/11/2017				<0.0025	0.0025	<0.0025	<0.0025	0.0015 (J)	0.0046
5/11/2017	0.0024 (J)	<0.0025	<0.0025	<0.0025					
5/12/2017					0.0011 (J)	<0.0025	<0.0025	<0.0025	0.004
3/20/2018		0.0024 (J)	<0.0025						
3/21/2018	0.0032			<0.0025	0.0013 (J)				0.068
3/22/2018						<0.0025		<0.0025	
3/23/2018							<0.0025		
6/6/2018	0.0029	0.0026	<0.0025						
6/7/2018						<0.0025	<0.0025	<0.0025	0.0048
6/8/2018				<0.0025	0.0012 (J)				
11/19/2018	0.0019 (J)	0.0024 (J)	<0.0025	<0.0025	0.0016 (J)	<0.0025			
11/20/2018							<0.0025	<0.0025	0.0036

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0025	<0.0025
4/25/2016		
4/26/2016		
4/27/2016	<0.0025	<0.0025
6/27/2016		
6/28/2016	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025
8/30/2016		
11/1/2016		
11/2/2016	<0.0025	
11/3/2016		<0.0025
1/4/2017		
1/5/2017	<0.0025	<0.0025
3/10/2017		
3/11/2017	<0.0025	0.0012 (J)
5/11/2017		
5/12/2017	<0.0025	<0.0025
3/20/2018		
3/21/2018		
3/22/2018	0.0024 (J)	0.0017 (J)
3/23/2018		
6/6/2018		
6/7/2018	<0.0025	<0.0025
6/8/2018		
11/19/2018	<0.0025	<0.0025
11/20/2018		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0025	<0.0025	<0.0025						<0.0025
2/23/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
4/25/2016	<0.0025	<0.0025							
4/26/2016			<0.0025	<0.0025	<0.0025			<0.0025	<0.0025
4/27/2016						<0.0025	<0.0025		
6/27/2016	<0.0025	<0.0025	<0.0025						
6/28/2016				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			
8/30/2016							<0.0025	<0.0025	<0.0025
11/1/2016	<0.0025	<0.0025	<0.0025						
11/2/2016				<0.0025	<0.0025	<0.0025			
11/3/2016							<0.0025	<0.0025	<0.0025
1/4/2017	<0.0025	<0.0025	<0.0025						
1/5/2017				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/10/2017	<0.0025	<0.0025	<0.0025						
3/11/2017				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
5/11/2017	<0.0025	<0.0025	<0.0025	<0.0025					
5/12/2017					<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/20/2018		<0.0025	<0.0025						
3/21/2018	<0.0025			<0.0025	<0.0025				0.00046 (J)
3/22/2018						<0.0025		<0.0025	
3/23/2018							<0.0025		
6/6/2018	<0.0025	<0.0025	<0.0025						
6/7/2018						<0.0025	<0.0025	<0.0025	<0.0025
6/8/2018				<0.0025	<0.0025				
11/19/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			
11/20/2018							<0.0025	<0.0025	<0.0025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0025	<0.0025
4/25/2016		
4/26/2016		
4/27/2016	<0.0025	<0.0025
6/27/2016		
6/28/2016	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025
8/30/2016		
11/1/2016		
11/2/2016	<0.0025	
11/3/2016		<0.0025
1/4/2017		
1/5/2017	<0.0025	<0.0025
3/10/2017		
3/11/2017	<0.0025	<0.0025
5/11/2017		
5/12/2017	<0.0025	<0.0025
3/20/2018		
3/21/2018		
3/22/2018	<0.0025	<0.0025
3/23/2018		
6/6/2018		
6/7/2018	<0.0025	<0.0025
6/8/2018		
11/19/2018	<0.0025	<0.0025
11/20/2018		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	3.71	1.96	4.64						32.5
2/23/2016				32.3	25.8	41.1	32.5	19.4	
4/25/2016	3.7	1.71							
4/26/2016			2.65	39.3	25.4			25.2	38.6
4/27/2016						45.3	30		
6/27/2016	3.04	1	2.49						
6/28/2016				40.9	27.5	41.3	32	28.3	30.2
8/29/2016	3.2	1.69	2.45	18.9	26.7	38.8			
8/30/2016							27.9	23.9	30.4
11/1/2016	1.75	1.83	2.59						
11/2/2016				32	25.4	42.3			
11/3/2016							21.5	26.2	25.4
1/4/2017	1.79	1.75	2.69						
1/5/2017				25.1	27.4	48	29.6	29.2	33
3/10/2017	1.78	1.5	1.84						
3/11/2017				28.8	24.4	36.9	22	22.8	26.4
5/11/2017	1.14	1.34	2.12	25.5					
5/12/2017					20.7	33.5	20.2	24	19
3/20/2018		1.82	1.81						
3/21/2018	1.32			24.5	19.3				26.5
3/22/2018						32.4		19.7	
3/23/2018							12.8		
6/6/2018	1.32	1.19	2.32						
6/7/2018						37.5	13.9	18.5	23.6
6/8/2018				26.9	21.6				
11/19/2018	0.763	2.18	2.37	27.4	53.5	33.6			
11/20/2018							13.2	19.8	28.6

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	11.8	6.3
4/25/2016		
4/26/2016		
4/27/2016	17.2	9.6
6/27/2016		
6/28/2016	20.5	9.41
8/29/2016	20	8.93
8/30/2016		
11/1/2016		
11/2/2016	9.47	11.3
11/3/2016		
1/4/2017		
1/5/2017	13.8	9.88
3/10/2017		
3/11/2017	15.8	7.75
5/11/2017		
5/12/2017	10.3	8.83
3/20/2018		
3/21/2018		
3/22/2018	14	4.78
3/23/2018		
6/6/2018		
6/7/2018	14.9	4.88
6/8/2018		
11/19/2018	11.6	5.59
11/20/2018		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	0.06 (J)	0.04 (J)	0.09 (J)						0.04 (J)
2/23/2016				0.085 (J)	0.047 (J)	<0.1	0.077 (J)	0.06 (J)	
4/25/2016	0.04 (J)	<0.1							
4/26/2016			0.08 (J)	0.05 (J)	0.04 (J)			0.04 (J)	<0.1
4/27/2016						<0.1	0.04 (J)		
6/27/2016	0.04 (J)	<0.1	0.08 (J)						
6/28/2016				0.05 (J)	<0.1	<0.1	0.04 (J)	0.04 (J)	<0.1
8/29/2016	0.16	0.04 (J)	0.09 (J)	<0.1	0.04 (J)	<0.1			
8/30/2016							0.04 (J)	0.04 (J)	<0.1
11/1/2016	0.17	<0.1	0.08 (J)						
11/2/2016				<0.1	<0.1	<0.1			
11/3/2016							0.04 (J)	<0.1	<0.1
1/4/2017	0.23	<0.1	0.1						
1/5/2017				<0.1	<0.1	<0.1	0.04 (J)	0.04 (J)	<0.1
3/10/2017	0.21	<0.1	0.1						
3/11/2017				0.04 (J)	<0.1	<0.1	<0.1	<0.1	<0.1
5/11/2017	0.23	<0.1	0.1	0.04 (J)					
5/12/2017					0.04 (J)	<0.1	<0.1	<0.1	<0.1
10/12/2017	0.27	<0.1	0.12	0.04	<0.1				
10/13/2017						<0.1	0.04	<0.1	<0.1
3/20/2018		<0.1	0.12						
3/21/2018	0.28			0.05 (J)	<0.1				0.05 (J)
3/22/2018						<0.1		<0.1	
3/23/2018							<0.1		
6/6/2018	0.19	0.04 (J)	0.12						
6/7/2018						<0.1	0.05 (J)	<0.1	<0.1
6/8/2018				0.05 (J)	<0.1				
11/19/2018	0.12	0.04 (J)	0.13	0.04 (J)	<0.1	<0.1			
11/20/2018							<0.1	<0.1	<0.1

Time Series

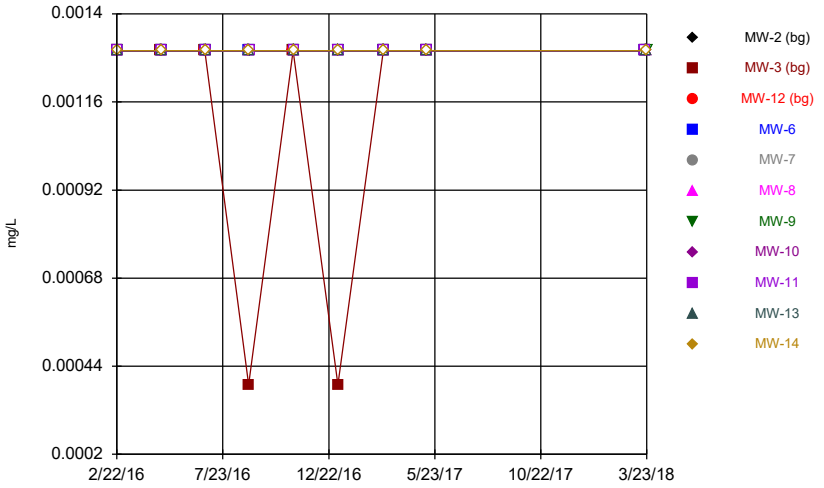
Constituent: Fluoride (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	0.11	0.068 (J)
4/25/2016		
4/26/2016		
4/27/2016	0.05 (J)	0.04 (J)
6/27/2016		
6/28/2016	0.05 (J)	0.04 (J)
8/29/2016	0.05 (J)	0.05 (J)
8/30/2016		
11/1/2016		
11/2/2016	0.04 (J)	
11/3/2016		0.04 (J)
1/4/2017		
1/5/2017	0.06 (J)	0.04 (J)
3/10/2017		
3/11/2017	<0.1	<0.1
5/11/2017		
5/12/2017	0.06 (J)	0.05 (J)
10/12/2017		
10/13/2017	0.04	0.05
3/20/2018		
3/21/2018		
3/22/2018	0.04 (J)	0.07 (J)
3/23/2018		
6/6/2018		
6/7/2018	0.05 (J)	0.08 (J)
6/8/2018		
11/19/2018	0.04 (J)	0.08 (J)
11/20/2018		

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

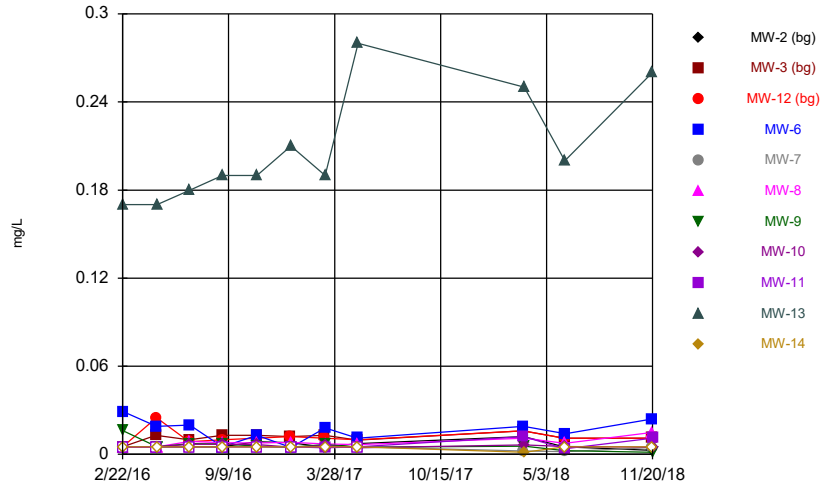
Time Series



Constituent: Lead Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

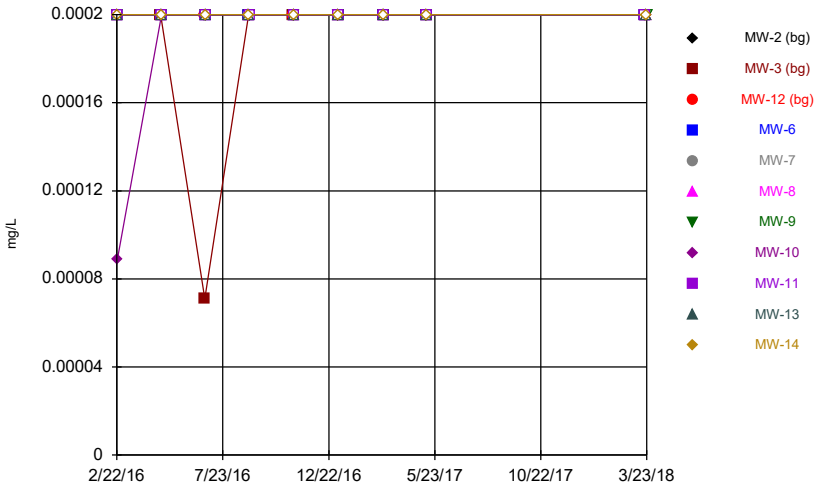
Time Series



Constituent: Lithium Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

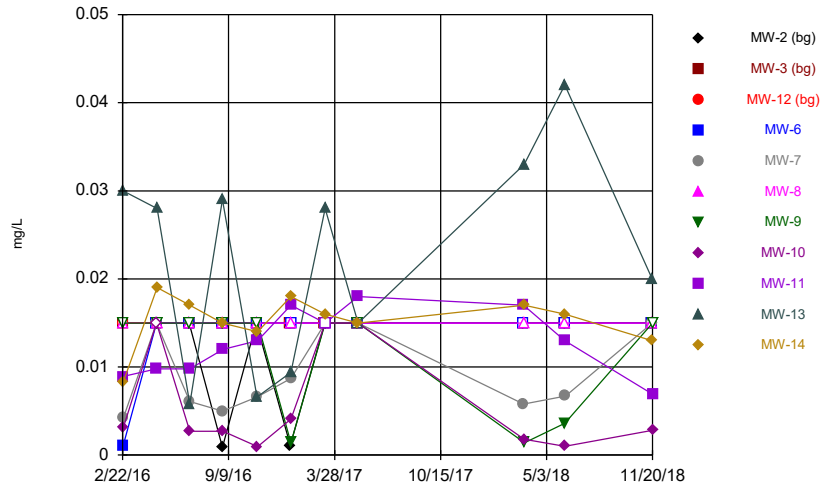
Time Series



Constituent: Mercury Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Molybdenum Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Constituent: Lead (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0013	<0.0013	<0.0013						<0.0013
2/23/2016				<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	
4/25/2016	<0.0013	<0.0013							
4/26/2016			<0.0013	<0.0013	<0.0013			<0.0013	<0.0013
4/27/2016						<0.0013	<0.0013		
6/27/2016	<0.0013	<0.0013	<0.0013						
6/28/2016				<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
8/29/2016	<0.0013	0.00039 (J)	<0.0013	<0.0013	<0.0013	<0.0013			
8/30/2016							<0.0013	<0.0013	<0.0013
11/1/2016	<0.0013	<0.0013	<0.0013						
11/2/2016				<0.0013	<0.0013	<0.0013			
11/3/2016							<0.0013	<0.0013	<0.0013
1/4/2017	<0.0013	0.00039 (J)	<0.0013						
1/5/2017				<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
3/10/2017	<0.0013	<0.0013	<0.0013						
3/11/2017				<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
5/11/2017	<0.0013	<0.0013	<0.0013	<0.0013					
5/12/2017					<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
3/20/2018		<0.0013	<0.0013						
3/21/2018	<0.0013			<0.0013	<0.0013				<0.0013
3/22/2018						<0.0013		<0.0013	
3/23/2018							<0.0013		

Time Series

Constituent: Lead (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0013	<0.0013
4/25/2016		
4/26/2016		
4/27/2016	<0.0013	<0.0013
6/27/2016		
6/28/2016	<0.0013	<0.0013
8/29/2016	<0.0013	<0.0013
8/30/2016		
11/1/2016		
11/2/2016	<0.0013	
11/3/2016		<0.0013
1/4/2017		
1/5/2017	<0.0013	<0.0013
3/10/2017		
3/11/2017	<0.0013	<0.0013
5/11/2017		
5/12/2017	<0.0013	<0.0013
3/20/2018		
3/21/2018		
3/22/2018	<0.0013	<0.0013
3/23/2018		

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.005	<0.005	<0.005						<0.005
2/23/2016				0.029	<0.005	<0.005	0.016	<0.005	
4/25/2016	<0.005	0.013							
4/26/2016			0.025	0.019 (J)	<0.005			<0.005	<0.005
4/27/2016						<0.005	<0.005		
6/27/2016	<0.005	0.01	0.0085						
6/28/2016				0.02	<0.005	0.0089	0.0072	0.0069	<0.005
8/29/2016	<0.005	0.013	0.01	<0.005	<0.005	0.008			
8/30/2016							0.0071	0.0069	<0.005
11/1/2016	0.0087	0.013	0.011						
11/2/2016				0.013	<0.005	0.0078			
11/3/2016							0.0055	0.0067	<0.005
1/4/2017	0.0079	0.012	0.012						
1/5/2017				0.0047 (J)	<0.005	0.0081	0.0049 (J)	0.0049 (J)	<0.005
3/10/2017	0.0049 (J)	0.013	0.011						
3/11/2017				0.018	<0.005	0.007	0.0067	0.006	0.0044 (J)
5/11/2017	0.0073	0.0096	0.0098	0.011					
5/12/2017					<0.005	0.0067	0.0048 (J)	0.0044 (J)	<0.005
3/20/2018		0.016	0.016						
3/21/2018	0.012			0.019	0.0023 (J)				0.012
3/22/2018						0.011		0.0065	
3/23/2018							0.0056		
6/6/2018	0.0051	0.011	0.011						
6/7/2018						0.0076	0.0026 (J)	0.0054	0.0038 (J)
6/8/2018				0.014	0.0018 (J)				
11/19/2018	0.0028 (J)	0.011	0.011	0.024	0.0047 (J)	0.015			
11/20/2018							0.0013 (J)	0.0048 (J)	0.011

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	0.17	<0.005
4/25/2016		
4/26/2016		
4/27/2016	0.17	<0.005
6/27/2016		
6/28/2016	0.18	<0.005
8/29/2016	0.19	<0.005
8/30/2016		
11/1/2016		
11/2/2016	0.19	
11/3/2016		<0.005
1/4/2017		
1/5/2017	0.21	<0.005
3/10/2017		
3/11/2017	0.19	<0.005
5/11/2017		
5/12/2017	0.28	<0.005
3/20/2018		
3/21/2018		
3/22/2018	0.25	0.0013 (J)
3/23/2018		
6/6/2018		
6/7/2018	0.2	<0.005
6/8/2018		
11/19/2018	0.26	<0.005
11/20/2018		

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0002	<0.0002	<0.0002						<0.0002
2/23/2016				<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002 (*)	8.9E-05 (J)	
4/25/2016	<0.0002	<0.0002							
4/26/2016			<0.0002	<0.0002	<0.0002			<0.0002	<0.0002
4/27/2016						<0.0002	<0.0002		
6/27/2016	<0.0002	7.1E-05 (J)	<0.0002						
6/28/2016				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/29/2016	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
8/30/2016							<0.0002	<0.0002	<0.0002
11/1/2016	<0.0002	<0.0002	<0.0002						
11/2/2016				<0.0002	<0.0002	<0.0002			
11/3/2016							<0.0002	<0.0002	<0.0002
1/4/2017	<0.0002	<0.0002	<0.0002						
1/5/2017				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/10/2017	<0.0002	<0.0002	<0.0002						
3/11/2017				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
5/11/2017	<0.0002	<0.0002	<0.0002	<0.0002					
5/12/2017					<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
3/20/2018		<0.0002	<0.0002						
3/21/2018	<0.0002			<0.0002	<0.0002				<0.0002
3/22/2018						<0.0002		<0.0002	
3/23/2018							<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0002 (*)	<0.0002
4/25/2016		
4/26/2016		
4/27/2016	<0.0002	<0.0002
6/27/2016		
6/28/2016	<0.0002	<0.0002
8/29/2016	<0.0002	<0.0002
8/30/2016		
11/1/2016		
11/2/2016	<0.0002	
11/3/2016		<0.0002
1/4/2017		
1/5/2017	<0.0002	<0.0002
3/10/2017		
3/11/2017	<0.0002	<0.0002
5/11/2017		
5/12/2017	<0.0002	<0.0002
3/20/2018		
3/21/2018		
3/22/2018	<0.0002	<0.0002
3/23/2018		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.015	<0.015	<0.015						0.0089 (J)
2/23/2016				0.0011 (J)	0.0042 (J)	<0.015	<0.015	0.0031 (J)	
4/25/2016	<0.015	<0.015							
4/26/2016			<0.015	<0.015	<0.015			<0.015	0.0098 (J)
4/27/2016						<0.015	<0.015		
6/27/2016	<0.015	<0.015	<0.015						
6/28/2016				<0.015	0.0061 (J)	<0.015	<0.015	0.0027 (J)	0.0098 (J)
8/29/2016	0.0009 (J)	<0.015	<0.015	<0.015	0.005 (J)	<0.015			
8/30/2016							<0.015	0.0027 (J)	0.012 (J)
11/1/2016	<0.015	<0.015	<0.015						
11/2/2016				<0.015	0.0066 (J)	<0.015			
11/3/2016							<0.015	0.00097 (J)	0.013 (J)
1/4/2017	0.0011 (J)	<0.015	<0.015						
1/5/2017				<0.015	0.0087 (J)	<0.015	0.0014 (J)	0.0041 (J)	0.017
3/10/2017	<0.015 (*)	<0.015	<0.015						
3/11/2017				<0.015 (*)	<0.015 (*)	<0.015	<0.015	<0.015 (*)	<0.015 (*)
5/11/2017	<0.015	<0.015	<0.015	<0.015					
5/12/2017					<0.015 (*)	<0.015	<0.015	<0.015 (*)	0.018
3/20/2018		<0.015	<0.015						
3/21/2018	<0.015			<0.015	0.0058 (J)				0.017
3/22/2018						<0.015		0.0018 (J)	
3/23/2018							0.0014 (J)		
6/6/2018	<0.015	<0.015	<0.015						
6/7/2018						<0.015	0.0036 (J)	0.001 (J)	0.013 (J)
6/8/2018				<0.015	0.0067 (J)				
11/19/2018	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015			
11/20/2018							<0.015	0.0028 (J)	0.0069 (J)

Time Series

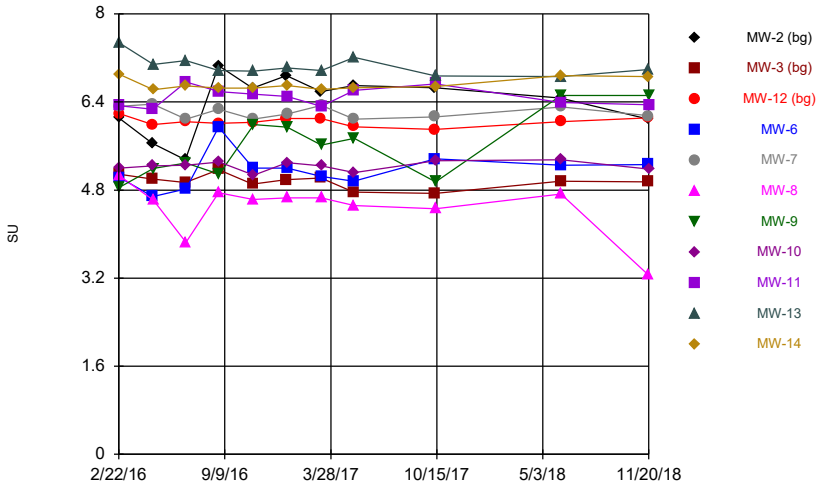
Constituent: Molybdenum (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	0.03 (J)	0.0083 (J)
4/25/2016		
4/26/2016		
4/27/2016	0.028 (J)	0.019 (J)
6/27/2016		
6/28/2016	0.0058 (J)	0.017
8/29/2016	0.029	0.015
8/30/2016		
11/1/2016		
11/2/2016	0.0066 (J)	
11/3/2016		0.014 (J)
1/4/2017		
1/5/2017	0.0094 (J)	0.018
3/10/2017		
3/11/2017	0.028	0.016
5/11/2017		
5/12/2017	<0.015 (*)	0.015
3/20/2018		
3/21/2018		
3/22/2018	0.033	0.017
3/23/2018		
6/6/2018		
6/7/2018	0.042	0.016
6/8/2018		
11/19/2018	0.02	0.013 (J)
11/20/2018		

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

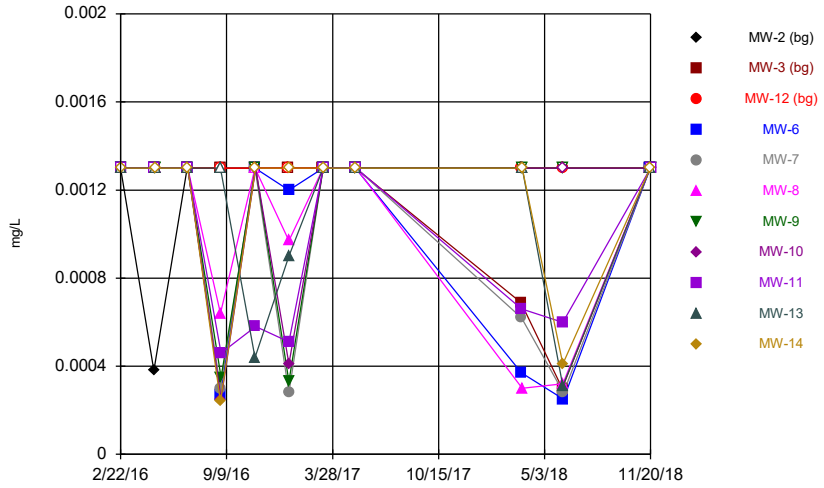
Time Series



Constituent: pH Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

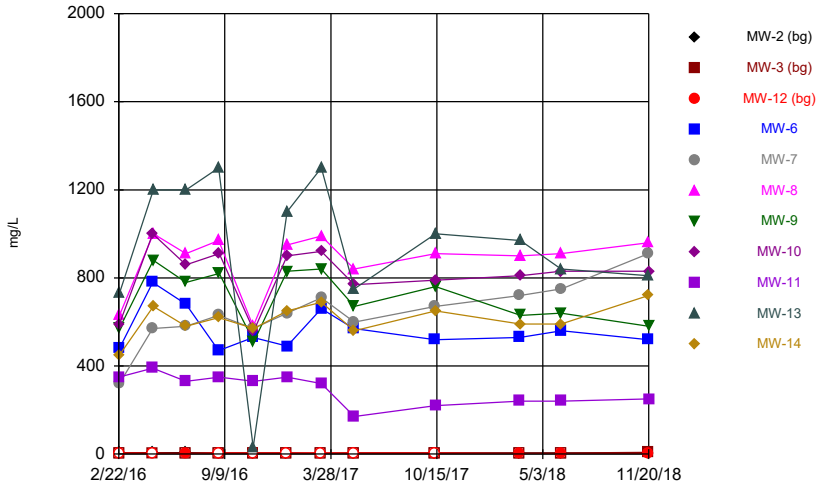
Time Series



Constituent: Selenium Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

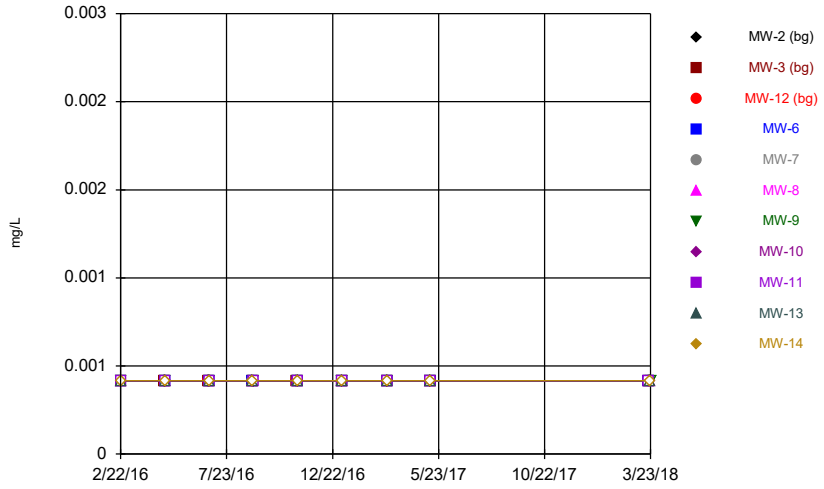
Time Series



Constituent: Sulfate Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 2/11/2019 10:51 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Constituent: pH (SU) Analysis Run 2/11/2019 10:53 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	6.11 (B01)	5.09 (B01)	6.19 (B01)						6.33 (B01)
2/23/2016				5.03 (B01)	6.32 (B01)	5.06 (B01)	4.85 (B01)	5.2 (B01)	
4/25/2016	5.65 (B02)	5 (B02)							
4/26/2016			5.99 (B02)	4.68 (B02)	6.36 (B02)			5.24 (B02)	6.27 (B02)
4/27/2016						4.62 (B02)	5.19 (B02)		
6/27/2016	5.35 (B03)	4.94 (B03)	6.04 (B03)						
6/28/2016				4.82 (B03)	6.09 (B03)	3.85 (B03)	5.29 (B03)	5.25 (B03)	6.76 (B03)
8/29/2016	7.06 (B04)	5.17 (B04)	6.01 (B04)	5.94 (B04)	6.27 (B04)	4.75 (B04)			
8/30/2016							5.09 (B04)	5.31 (B04)	6.59 (B04)
11/1/2016	6.65 (B05)	4.91 (B05)	6.03 (B05)						
11/2/2016				5.2 (B05)	6.09 (B05)	4.63 (B05)			
11/3/2016							5.99 (B05)	5.07 (B05)	6.54 (B05)
1/4/2017	6.88 (B06)	4.99 (B06)	6.1 (B06)						
1/5/2017				5.2 (B06)	6.18 (B06)	4.66 (B06)	5.94 (B06)	5.3 (B06)	6.5 (B06)
3/10/2017	6.59 (B07)	5.02 (B07)	6.1 (B07)						
3/11/2017				5.05 (B07)	6.34 (B07)	4.66 (B07)	5.62 (B07)	5.24 (B07)	6.32 (B07)
5/11/2017	6.7 (B08)	4.76 (B08)	5.95 (B08)	4.96 (B08)					
5/12/2017					6.09 (B08)	4.52 (B08)	5.74 (B08)	5.12 (B08)	6.61 (B08)
10/12/2017	6.66	4.74	5.9	5.37	6.13				
10/13/2017						4.46	4.95	5.33	6.73
6/6/2018	6.47	4.96	6.04						
6/7/2018						4.73	6.52	5.35	6.39
6/8/2018				5.25	6.31				
11/19/2018	6.09	4.95	6.11	5.26	6.15	3.26			
11/20/2018							6.52	5.18	6.35

Time Series

Constituent: pH (SU) Analysis Run 2/11/2019 10:53 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	7.47 (B01)	6.9 (B01)
4/25/2016		
4/26/2016		
4/27/2016	7.08 (B02)	6.62 (B02)
6/27/2016		
6/28/2016	7.15 (B03)	6.69 (B03)
8/29/2016	6.97 (B04)	6.65 (B04)
8/30/2016		
11/1/2016		
11/2/2016	6.96 (B05)	6.65 (B05)
11/3/2016		
1/4/2017		
1/5/2017	7.02 (B06)	6.7 (B06)
3/10/2017		
3/11/2017	6.97 (B07)	6.63 (B07)
5/11/2017		
5/12/2017	7.21 (B08)	6.66 (B08)
10/12/2017		
10/13/2017	6.87	6.68
6/6/2018		
6/7/2018	6.86	6.88
6/8/2018		
11/19/2018	6.99	6.86
11/20/2018		

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0013	<0.0013	<0.0013						<0.0013
2/23/2016				<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	
4/25/2016	0.00038 (J)	<0.0013							
4/26/2016			<0.0013	<0.0013	<0.0013			<0.0013	<0.0013
4/27/2016						<0.0013	<0.0013		
6/27/2016	<0.0013	<0.0013	<0.0013						
6/28/2016				<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	<0.0013 (*)
8/29/2016	<0.0013	<0.0013	<0.0013	0.00027 (J)	0.0003 (J)	0.00064 (J)			
8/30/2016							0.00035 (J)	0.00025 (J)	0.00046 (J)
11/1/2016	<0.0013	<0.0013	<0.0013						
11/2/2016				<0.0013	<0.0013	<0.0013			
11/3/2016							<0.0013	<0.0013	0.00058 (J)
1/4/2017	<0.0013	<0.0013	<0.0013						
1/5/2017				0.0012 (J)	0.00028 (J)	0.00097 (J)	0.00033 (J)	0.00041 (J)	0.00051 (J)
3/10/2017	<0.0013 (*)	<0.0013	<0.0013						
3/11/2017				<0.0013 (*)	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013 (*)
5/11/2017	<0.0013	<0.0013	<0.0013	<0.0013					
5/12/2017					<0.0013	<0.0013	<0.0013	<0.0013	<0.0013
3/20/2018		0.00069 (J)	<0.0013						
3/21/2018	<0.0013			0.00037 (J)	0.00062 (J)				0.00066 (J)
3/22/2018						0.0003 (J)		<0.0013	
3/23/2018							<0.0013		
6/6/2018	<0.0013	0.0003 (J)	<0.0013						
6/7/2018						0.00032 (J)	<0.0013	<0.0013	0.0006 (J)
6/8/2018				0.00025 (J)	0.00028 (J)				
11/19/2018	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013			
11/20/2018							<0.0013	<0.0013	<0.0013

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0013	<0.0013
4/25/2016		
4/26/2016		
4/27/2016	<0.0013	<0.0013
6/27/2016		
6/28/2016	<0.0013	<0.0013 (*)
8/29/2016	<0.0013	0.00024 (J)
8/30/2016		
11/1/2016		
11/2/2016	0.00044 (J)	
11/3/2016		<0.0013
1/4/2017		
1/5/2017	0.0009 (J)	<0.0013
3/10/2017		
3/11/2017	<0.0013	<0.0013
5/11/2017		
5/12/2017	<0.0013	<0.0013
3/20/2018		
3/21/2018		
3/22/2018	<0.0013	<0.0013
3/23/2018		
6/6/2018		
6/7/2018	0.00031 (J)	0.00041 (J)
6/8/2018		
11/19/2018	<0.0013	<0.0013
11/20/2018		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	6.3	<5	<5						350
2/23/2016				480	320	630	570	590	
4/25/2016	6.1	1.4 (J)							
4/26/2016			<5	780	570			1000	390
4/27/2016						1000	880		
6/27/2016	6.6	<5	1.6 (J)						
6/28/2016				680	580	910	780	860	330
8/29/2016	4.5 (J)	<5	<5	470 (J)	630	970			
8/30/2016							820	910	350
11/1/2016	<5	<5	<5						
11/2/2016				530	570	580			
11/3/2016							510	560	330
1/4/2017	<5 (*)	<5 (*)	<5						
1/5/2017				490	640	950	830	900	350
3/10/2017	2.3 (J)	<5	<5						
3/11/2017				660	710	990	840	920	320
5/11/2017	<5	<5	<5	570					
5/12/2017					600	840	670	770	170 (J)
10/12/2017	<5	<5	<5	520	670				
10/13/2017						910	760	790	220
3/20/2018		<5	1.8 (J)						
3/21/2018	<5			530	720				240
3/22/2018						900		810	
3/23/2018							630		
6/6/2018	4.8 (J)	<5	2.3 (J)						
6/7/2018						910	640	830	240
6/8/2018				560	750				
11/19/2018	4.4 (J)	7.473 (D)	2.2 (J)	520	910	960			
11/20/2018							580	830	250

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	730	450
4/25/2016		
4/26/2016		
4/27/2016	1200	670
6/27/2016		
6/28/2016	1200	580
8/29/2016	1300	620
8/30/2016		
11/1/2016		
11/2/2016	31	
11/3/2016		570
1/4/2017		
1/5/2017	1100	650
3/10/2017		
3/11/2017	1300	690
5/11/2017		
5/12/2017	750	560
10/12/2017		
10/13/2017	1000	650
3/20/2018		
3/21/2018		
3/22/2018	970	590
3/23/2018		
6/6/2018		
6/7/2018	840	590
6/8/2018		
11/19/2018	810	720
11/20/2018		

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	<0.0005	<0.0005	<0.0005						<0.0005
2/23/2016				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
4/25/2016	<0.0005	<0.0005							
4/26/2016			<0.0005	<0.0005	<0.0005			<0.0005	<0.0005
4/27/2016						<0.0005	<0.0005		
6/27/2016	<0.0005	<0.0005	<0.0005						
6/28/2016				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/29/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
8/30/2016							<0.0005	<0.0005	<0.0005
11/1/2016	<0.0005	<0.0005	<0.0005						
11/2/2016				<0.0005	<0.0005	<0.0005			
11/3/2016							<0.0005	<0.0005	<0.0005
1/4/2017	<0.0005	<0.0005	<0.0005						
1/5/2017				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/10/2017	<0.0005	<0.0005	<0.0005						
3/11/2017				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
5/11/2017	<0.0005	<0.0005	<0.0005	<0.0005					
5/12/2017					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/20/2018		<0.0005	<0.0005						
3/21/2018	<0.0005			<0.0005	<0.0005				<0.0005
3/22/2018						<0.0005		<0.0005	
3/23/2018							<0.0005		

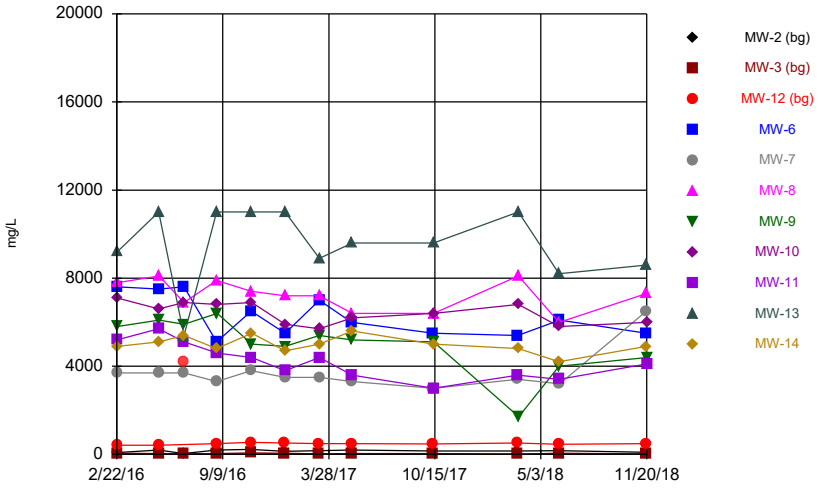
Time Series

Constituent: Thallium (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	<0.0005	<0.0005
4/25/2016		
4/26/2016		
4/27/2016	<0.0005	<0.0005
6/27/2016		
6/28/2016	<0.0005	<0.0005
8/29/2016	<0.0005	<0.0005
8/30/2016		
11/1/2016		
11/2/2016	<0.0005	
11/3/2016		<0.0005
1/4/2017		
1/5/2017	<0.0005	<0.0005
3/10/2017		
3/11/2017	<0.0005	<0.0005
5/11/2017		
5/12/2017	<0.0005	<0.0005
3/20/2018		
3/21/2018		
3/22/2018	<0.0005	<0.0005
3/23/2018		

Time Series



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 10:51 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-2 (bg)	MW-3 (bg)	MW-12 (bg)	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
2/22/2016	74	46	410						5200
2/23/2016				7600	3700	7800	5800	7100	
5/11/2016	200	42	410	7500	3700			6600	5700
5/12/2016						8100	6100		
6/27/2016	42	24	4200 (o)						
6/28/2016				7600	3700	6900	5900	6900	5100
8/29/2016	200	42	490	5100	3300	7900			
8/30/2016							6400	6800	4600
11/1/2016	220	64	540						
11/2/2016				6500	3800	7400			
11/3/2016							5000	6900	4400
1/4/2017	140	44	520						
1/5/2017				5500	3500	7200	4900	5900	3800
3/10/2017	160	16	490						
3/11/2017				7000	3500	7200	5400	5700	4400
5/11/2017	190	42	490	6000					
5/12/2017					3300	6400	5200	6200	3600
10/12/2017	150	30	470	5500	3000				
10/13/2017						6400	5100	6400	3000
3/20/2018		12	510						
3/21/2018	150			5400	3400				3600
3/22/2018						8100		6800	
3/23/2018							1700		
6/6/2018	160	46	460						
6/7/2018						6000	4000	5800	3400
6/8/2018				6100	3200				
11/19/2018	88 (D)	22	490	5500	6500	7300			
11/20/2018							4400	6000	4100

Time Series

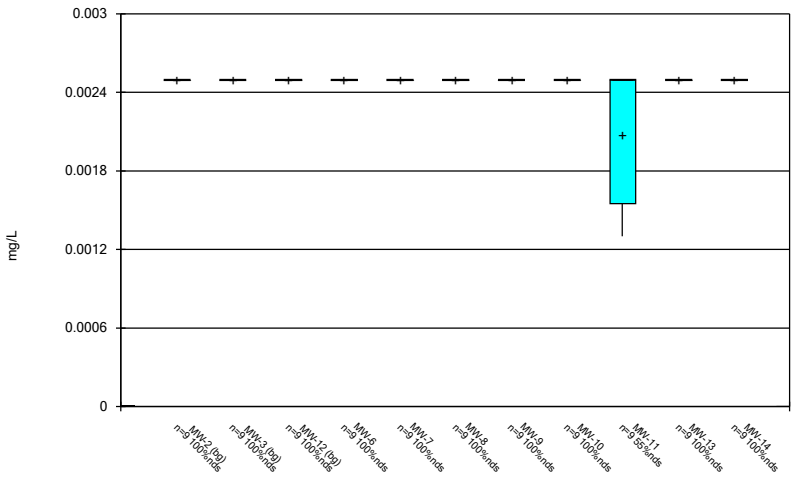
Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/11/2019 10:53 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

	MW-13	MW-14
2/22/2016		
2/23/2016	9200	4900
5/11/2016	11000	
5/12/2016		5100
6/27/2016		
6/28/2016	5400	5400
8/29/2016	11000	4800
8/30/2016		
11/1/2016		
11/2/2016	11000	
11/3/2016		5500
1/4/2017		
1/5/2017	11000	4700
3/10/2017		
3/11/2017	8900	5000
5/11/2017		
5/12/2017	9600	5600
10/12/2017		
10/13/2017	9600	5000
3/20/2018		
3/21/2018		
3/22/2018	11000	4800
3/23/2018		
6/6/2018		
6/7/2018	8200	4200
6/8/2018		
11/19/2018	8600	4900
11/20/2018		

Box Plots

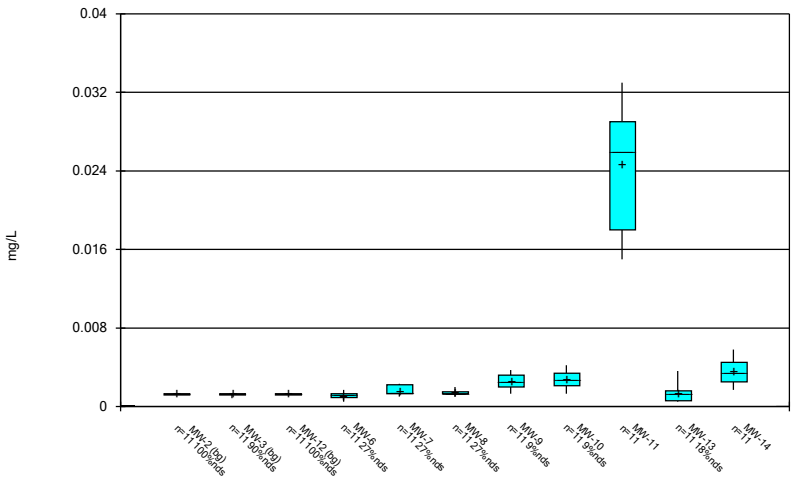
Box & Whiskers Plot



Constituent: Antimony Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

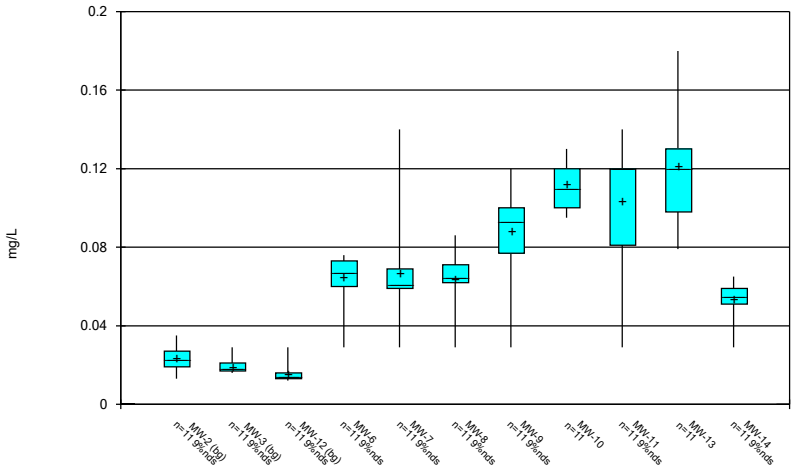
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

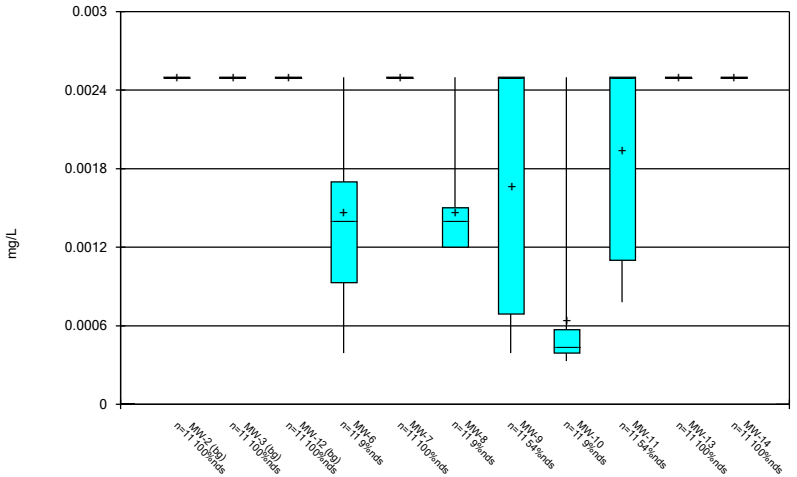
Box & Whiskers Plot



Constituent: Barium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

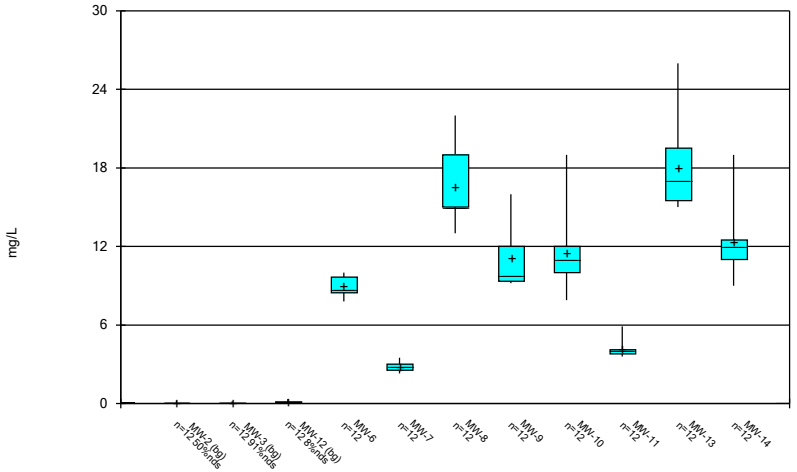
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

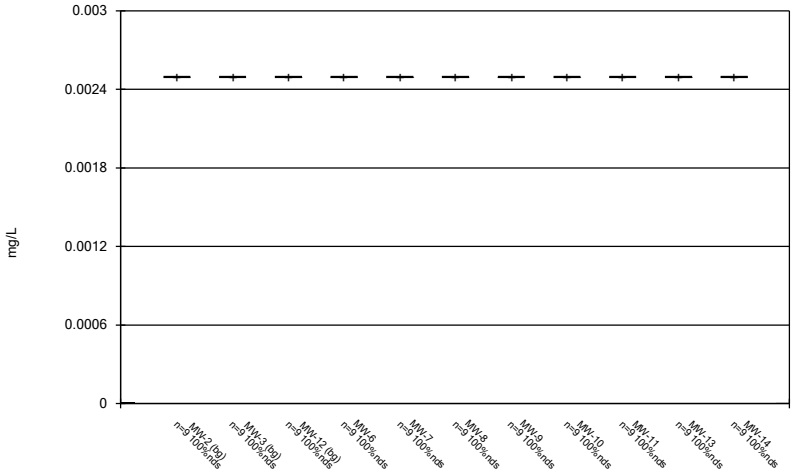
Box & Whiskers Plot



Constituent: Boron Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

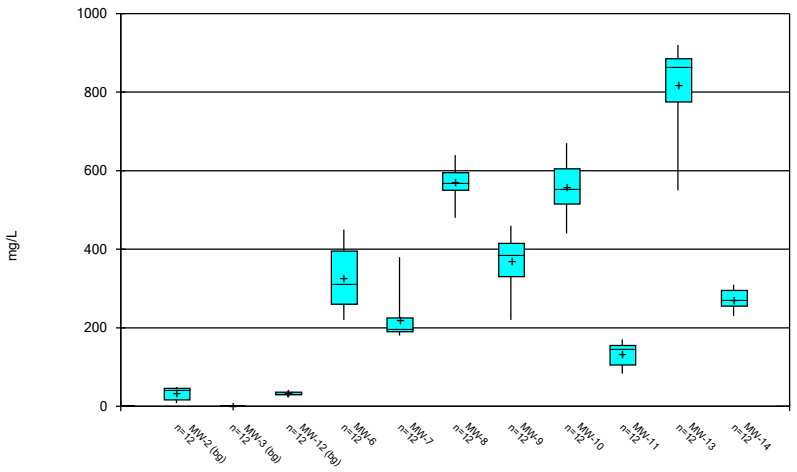
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

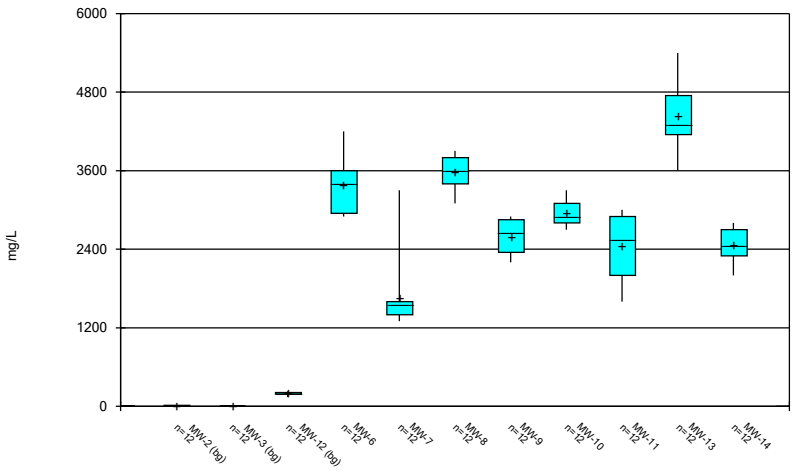
Box & Whiskers Plot



Constituent: Calcium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

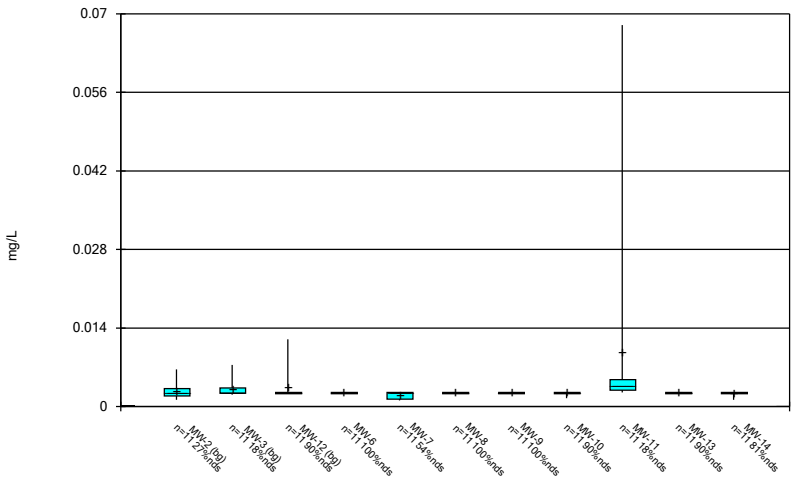
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Chloride Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

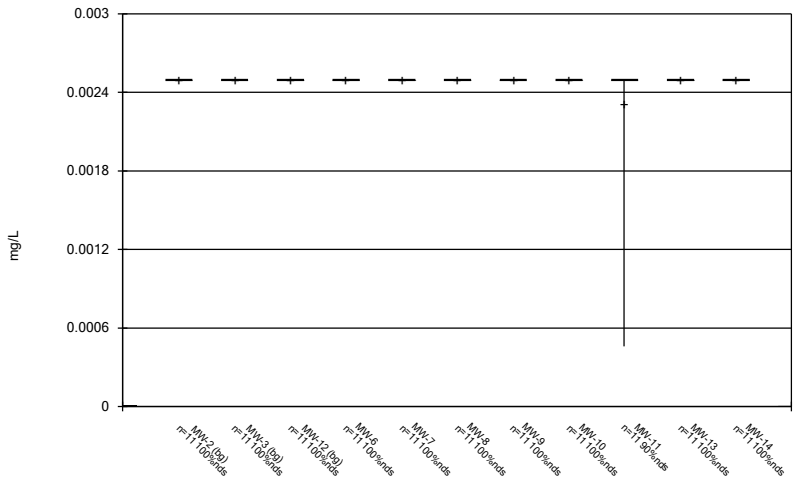
Box & Whiskers Plot



Constituent: Chromium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

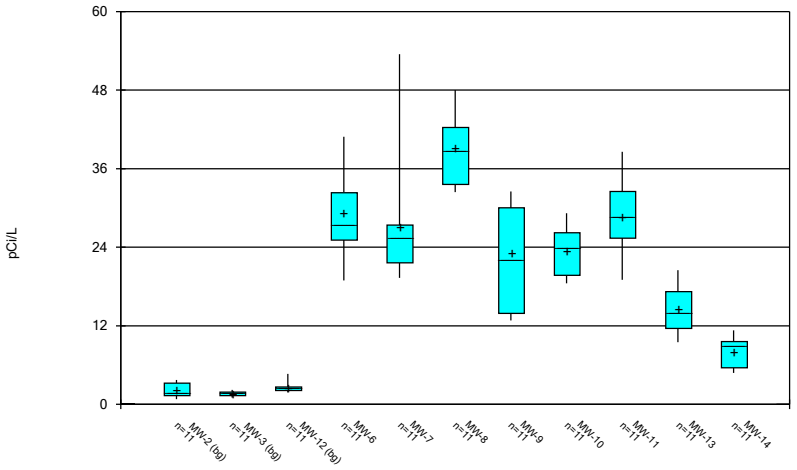
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

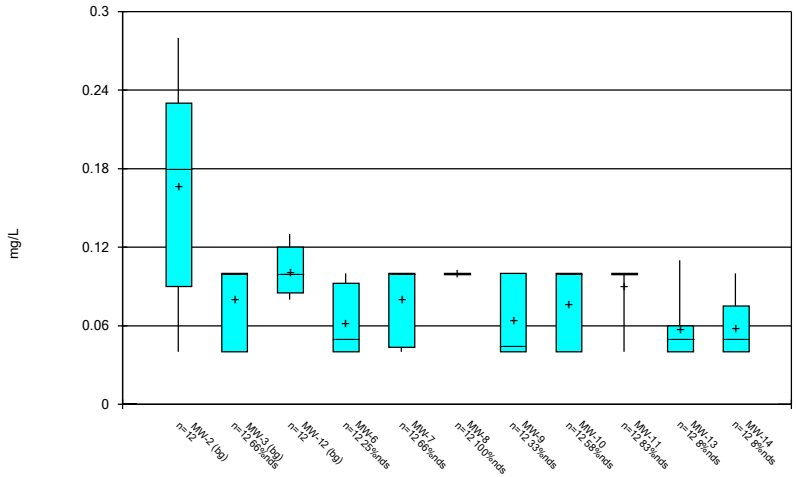
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

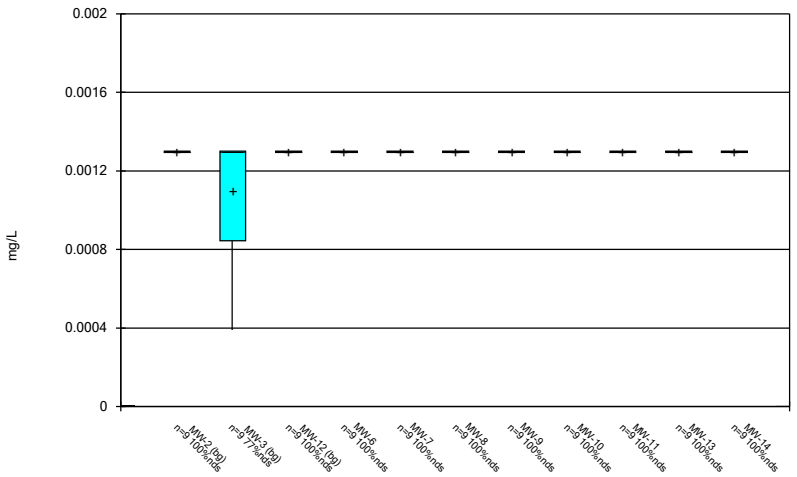
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

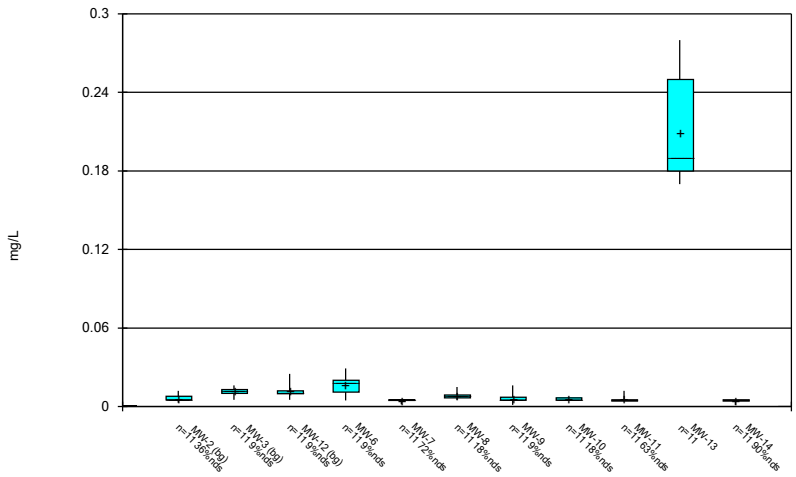
Box & Whiskers Plot



Constituent: Lead Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

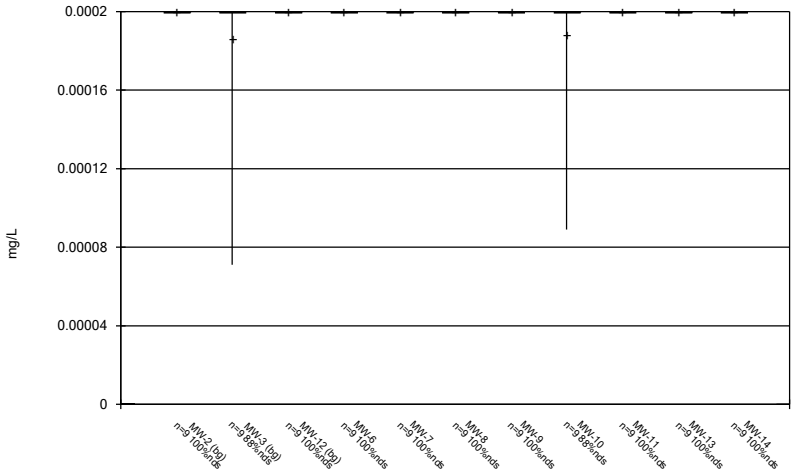
Box & Whiskers Plot



Constituent: Lithium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

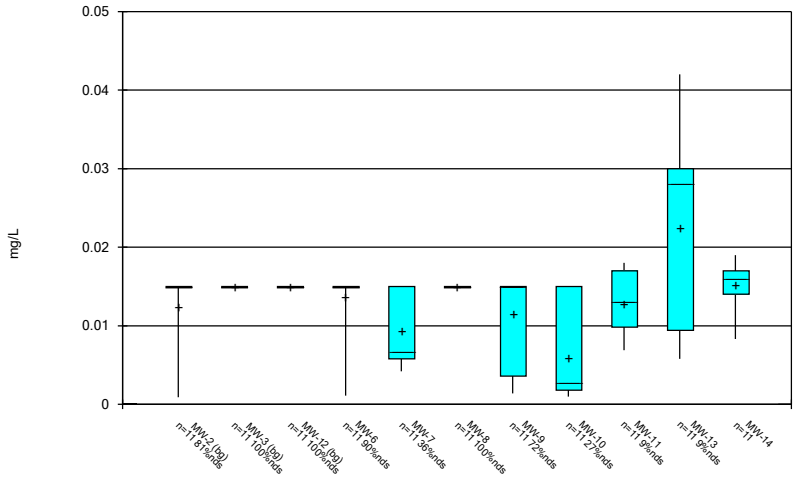
Box & Whiskers Plot



Constituent: Mercury Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

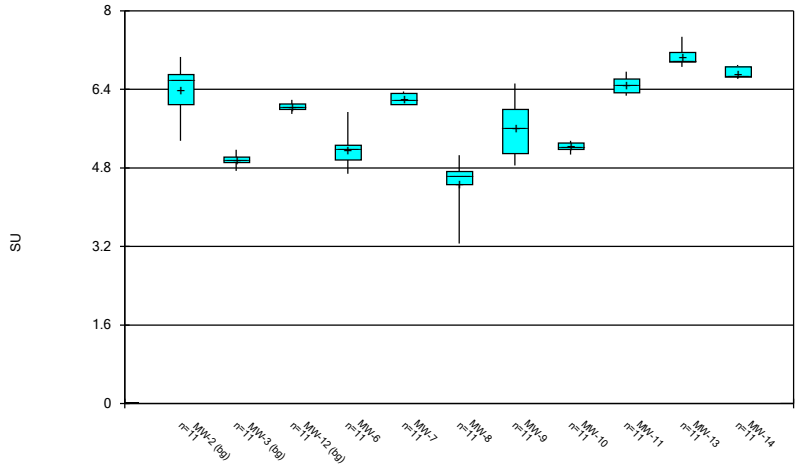
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



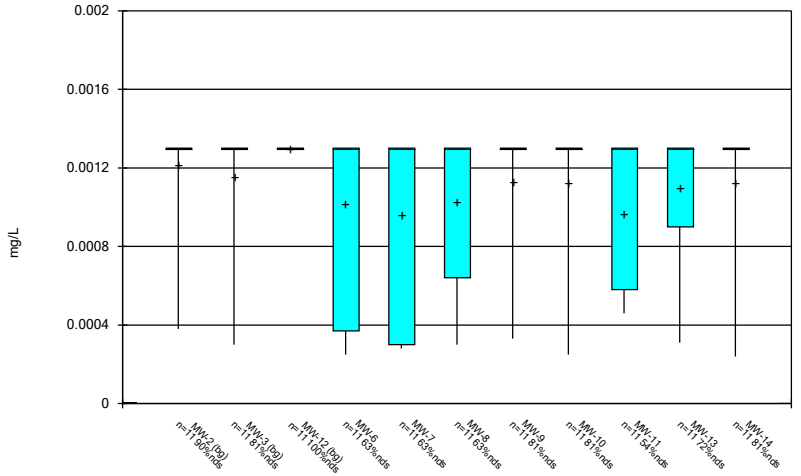
Constituent: Molybdenum Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Box & Whiskers Plot



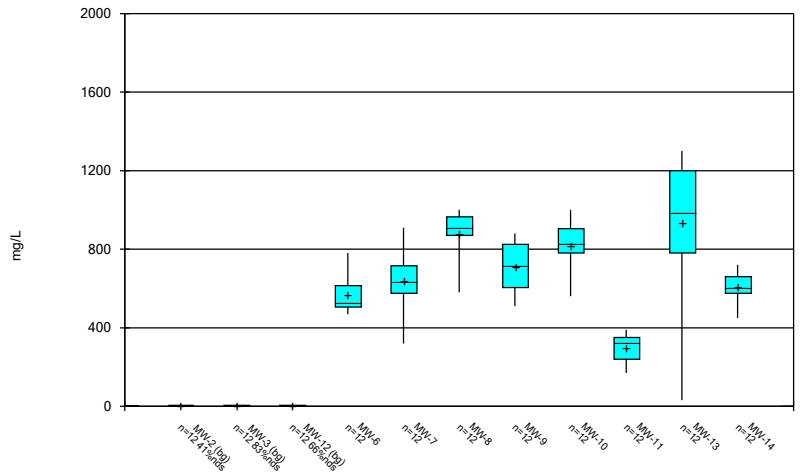
Constituent: pH Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Box & Whiskers Plot



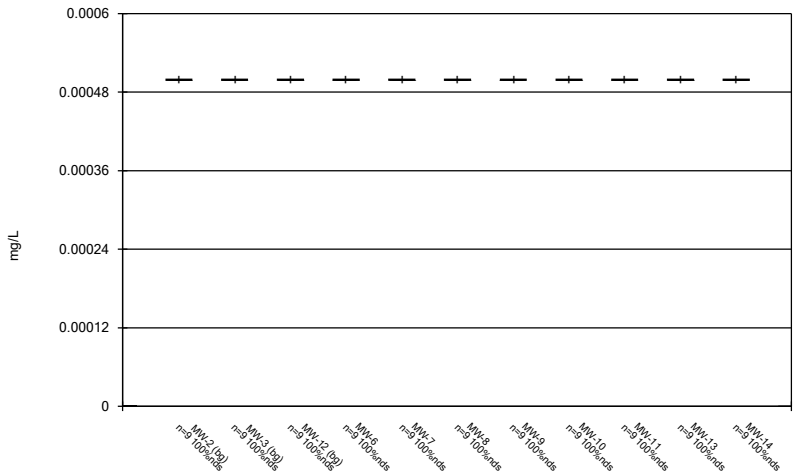
Constituent: Selenium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Box & Whiskers Plot



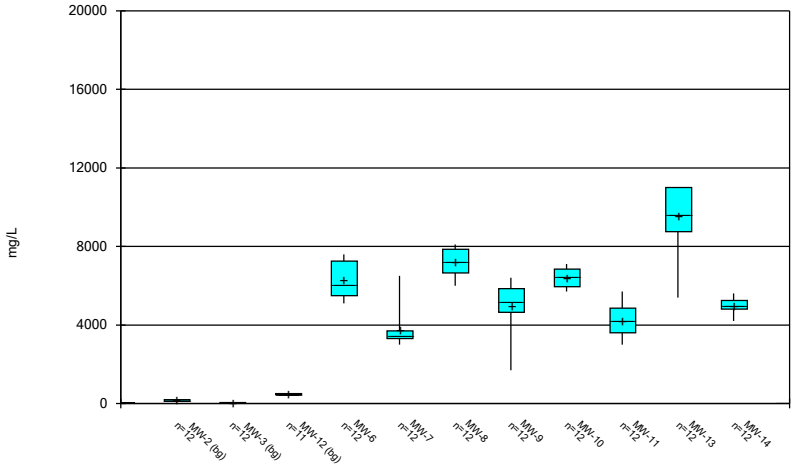
Constituent: Sulfate Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Box & Whiskers Plot



Constituent: Thallium Analysis Run 2/11/2019 10:55 AM View: Descriptive
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 10:55 AM View: Descriptive

Plant Smith Client: Gulf Power Data: Plant Smith CCR

APPENDIX C

Statistical Analyses – May 2019 Semi-Annual Monitoring

SUMMER 2019

GROUNDWATER STATISTICAL ANALYSIS

FOR GULF POWER'S

PLANT SMITH

Prepared by:

Groundwater Stats Consulting LLC

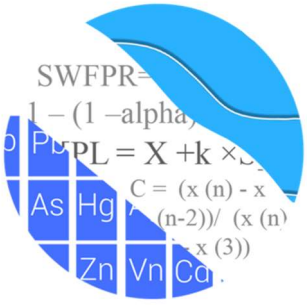


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GROUNDWATER STATS CONSULTING

October 21, 2019

Geosyntec Consultants
Attn: Mr. Benjamin K. Amos, Ph.D., P.E.
1255 Roberts Boulevard, Suite 200
Kennesaw, GA 30144

Re: Plant Smith
Statistical Analysis & Background Update - 2019

Dear Mr. Dorman,

Groundwater Stats Consulting (GSC), formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the background update and statistical analysis of the groundwater data for 2019 at Gulf Power Company's Plant Smith. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Sampling began at Plant Smith for the CCR program in 2016 at each of the groundwater monitoring wells. The monitoring well network, as provided by Geosyntec Consultants, consists of the following:

- **Upgradient wells:** MW-2, MW-3, MW-12
- **Downgradient wells:** MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14.

Data were provided electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The statistical analysis was performed according to the groundwater data

screening that was performed in October 2017 by GSC and approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting and primary author of the USEPA Unified Guidance.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS;
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium.

Time series plots for Appendix III and IV parameters at all wells are provided for these wells for the above constituents. Additionally, box plots are included for these constituents at all wells. The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

Proposed background data at all wells were evaluated, and reports submitted, during the October 2017 screening for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended.

Historical Summary – October 2017 Background Screening

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. The results of those findings were submitted with the October 2017 report.

No suspected outliers were observed in any of the data sets, with the exception of TDS in upgradient well MW-12. When the Tukey box plot method was used to screen this suspected outlier, it was determined that the reported value of 4200 mg/L for TDS in well MW-12 was a statistical outlier and, therefore, was flagged accordingly in the

database. Any values identified as outliers are plotted in a lighter font on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be visually identified, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed one statistically significant decreasing trend for total dissolved solids in well MW-11. This trend was relatively low in magnitude when compared to average concentrations; therefore, no adjustments were necessary.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient wells at Plant Smith for the following Appendix III parameters: boron, calcium, chloride, pH, and TDS, suggesting consideration of intrawell methods for these parameters. These constituents were further evaluated as described below for the appropriateness of intrawell testing to accommodate the groundwater quality. No statistically significant variation was noted for fluoride or sulfate, making these parameters eligible for interwell methods. A summary table of the ANOVA results was included with the screening report.

Appendix III – Intrawell Method Eligibility Screening

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are conservative (i.e. lower) from a regulatory perspective, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Prior to performing intrawell prediction limits, several steps are required to reasonably demonstrate that downgradient water quality does not have existing impacts from the practices of the facility.

Exploratory data analysis was used as a general comparison of concentrations in downgradient wells for all Appendix III parameters recommended for intrawell analyses to concentrations reported in upgradient wells. Upper tolerance limits are used in conjunction with confidence intervals to determine whether the estimated averages in downgradient wells are higher than observed levels upgradient of the facility. The upper tolerance limits were constructed to represent the extreme upper range of potential background levels at the site.

Either parametric or nonparametric tolerance limits are calculated based on the data characteristics that are described below for prediction limits. Parametric tolerance limits (for normal or transformed-normally distributed data) were constructed with a target of 99% confidence and 95% coverage using pooled upgradient well data for each of the Appendix III parameters recommended for intrawell analyses. For non-normal data, nonparametric tolerance limits are used. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As more data are collected, the background population is better represented, and the confidence and coverage levels increase.

Confidence intervals were constructed on downgradient wells for each of the Appendix III parameters exhibiting spatial variation, using the tolerance limits discussed above, to determine intrawell eligibility. Either parametric or nonparametric confidence intervals

were constructed as appropriate. When the entire confidence interval is above the background limit for a given parameter, interwell methods are initially recommended as the statistical method. Note that this screening identifies whether confidence intervals are above a background limit but does not identify the reason for this occurrence. Therefore, only the wells/parameters with confidence intervals which did not exceed background limits are eligible for intrawell prediction limits.

Confidence intervals for the above Appendix III parameters were found to be within their respective background limit for pH in all downgradient wells. The confidence intervals for boron, calcium, chloride, and TDS were above the background standard which precludes using intrawell methods without further evaluation. The results of the upper tolerance limits calculations and confidence interval comparisons were presented in the background screening report.

Based on the above screening, intrawell methods are recommended for pH, and interwell methods are recommended for boron, calcium, chloride, fluoride, sulfate, and TDS. If further evaluation confirms natural variation in groundwater at these downgradient wells, intrawell methods will be considered for these parameters. In cases where downgradient average concentrations are higher than observed concentrations upgradient for a given constituent, an independent study and hydrogeological investigation would be required to identify local geochemical conditions and expected groundwater quality for the region to justify an intrawell approach. Such an assessment is beyond the scope of services provided by Groundwater Stats Consulting. When there is not an obvious explanation for observed concentration differences in downgradient wells relative to reported concentrations in upgradient wells, interwell prediction limits will initially be selected for the statistical method until further evidence shows that higher downgradient concentrations are due to natural variation rather than a result of the facility.

Appendix III Background Update Summary – October 2019

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are periodically updated by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new data points. Historical data were evaluated for updating with newer data through March 2019 through the use of time series graphs to identify potential outliers when necessary, as well as with the Mann Whitney test for equality of medians. Intrawell prediction limits are used to evaluate pH due to natural spatial variation for this parameter.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, chloride, fluoride, sulfate, and TDS.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Prior to constructing prediction limits, proposed background data through March 2019 were reviewed to identify any newly suspected outliers at all wells for pH for intrawell testing, and at upgradient wells for boron, calcium, chloride, fluoride, sulfate, and TDS for interwell testing. Visual screening is used to identify potential outliers using time series graphs. When necessary, Tukey's outlier test is used to formally test suspected outliers. Data were re-evaluated with the most recent samples and high values were noted for chromium in MW-11, fluoride in MW-13, lead in MW-10, and TDS in well MW-14 along with the outlier in well MW-12 from the previous screening. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the

time series reports, as well as in a lighter font on the accompanying data pages. A summary of flagged values follows this letter.

For pH which required intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through October 2017 to newer compliance samples through March 2019 at each of the wells to evaluate whether the groups are statistically similar at the 99% confidence level. If no statistically significant difference is found, background data may be updated with compliance data. No statistically significant differences were found between the two groups for pH; therefore, all background data sets were updated.

When the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data, but will be reconsidered in the future. A summary of these results follows this letter, and the test results are included with the Mann-Whitney test section at the end of this report.

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant trends are identified in upgradient wells, the earlier portion of data is deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. No statistically significant increasing trends were noted in upgradient wells with the exception of fluoride in MW-12; however, the magnitude of the trend was low relative to average concentrations, and no adjustment of the record was required. A summary of the trend test results may be seen on the Trend Test Summary Table.

Prediction Limits - Appendix III Parameters

All available data through March 2019 for pH at each well were used to construct intrawell prediction limits based on a 1-of-2 resample plan and the most recent sample from the same well is compared to its respective background. Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all available data from upgradient wells through May 2019 period for boron, calcium, chloride, fluoride, sulfate, and TDS.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the intrawell case, data are

evaluated when at least 4 new compliance values are available. In the interwell case, newer data are carefully evaluated during each event for new outliers, and prediction limits are constructed using all available data from upgradient wells.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of an additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. The summary of updated limits may be found following this letter in the Prediction Limit Summary Tables.

Evaluation of Appendix IV Parameters

Appendix IV parameters in upgradient and downgradient wells were screened for outliers both visually and using Tukey's test. Flagged values include chromium at MW-11, fluoride at MW-13 and lead at MW-10. Either parametric or nonparametric tolerance limits, as appropriate, were used to calculate background limits from pooled upgradient well data for Appendix IV parameters, with a target of 95% confidence and 95% coverage for parametric limits, to determine the Alternate Contaminant Level (ACL). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These limits were compared to the Maximum Contaminant Levels (MCLs) and CCR rule-specified levels to determine the highest limit for use as the Groundwater Protection Standard (GWPS) in the Confidence Interval comparisons.

Confidence intervals were then constructed on downgradient wells for each of the Appendix IV parameters and compared to the highest limit of either the MCL, rule-specified level, or ACL discussed above. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Tables of the upper tolerance limits, confidence intervals along with graphical comparisons against standards, and significant results (exceedances) follow this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Smith. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew T. Collins
Groundwater Analyst



Kristina L. Rayner
Groundwater Statistician

Outlier Summary

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:26 AM

	MW-11 Chromium (mg/L)	MW-13 Fluoride (mg/L)	MW-10 Lead (mg/L)	MW-12 Total Dissolved Solids (mg/L)	MW-14 Total Dissolved Solids (mg/L)
6/27/2016				4200 (o)	
3/21/2018	0.068 (o)				
3/11/2019			0.0093 (o)		45500 (oD)
3/12/2019		0.24 (o)			

Interwell Prediction Limits - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 10/19/2019, 1:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-6	0.33	n/a	5/29/2019	9	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-7	0.33	n/a	5/29/2019	3.2	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-8	0.33	n/a	5/30/2019	14	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-9	0.33	n/a	5/30/2019	10	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-10	0.33	n/a	5/30/2019	10	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-11	0.33	n/a	5/29/2019	4.1	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-14	0.33	n/a	5/30/2019	14	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-6	49	n/a	5/29/2019	250	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-7	49	n/a	5/29/2019	440	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-8	49	n/a	5/30/2019	470	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-9	49	n/a	5/30/2019	230	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-10	49	n/a	5/30/2019	440	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-11	49	n/a	5/29/2019	190	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-13	49	n/a	5/29/2019	640	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-14	49	n/a	5/30/2019	230	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-6	230	n/a	5/29/2019	2800	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	230	n/a	5/29/2019	3400	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	230	n/a	5/30/2019	3700	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-9	230	n/a	5/30/2019	2100	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-10	230	n/a	5/30/2019	2600	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	230	n/a	5/29/2019	2900	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-13	230	n/a	5/29/2019	4300	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-14	230	n/a	5/30/2019	2000	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MW-6	7.473	n/a	5/29/2019	460	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-7	7.473	n/a	5/29/2019	870	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-8	7.473	n/a	5/30/2019	940	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-9	7.473	n/a	5/30/2019	550	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-10	7.473	n/a	5/30/2019	800	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-11	7.473	n/a	5/29/2019	350	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-13	7.473	n/a	5/29/2019	830	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-14	7.473	n/a	5/30/2019	550	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-6	540	n/a	5/29/2019	5800	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-7	540	n/a	5/29/2019	8600	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-8	540	n/a	5/30/2019	7700	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-9	540	n/a	5/30/2019	4600	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-10	540	n/a	5/30/2019	5900	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	540	n/a	5/29/2019	5600	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-13	540	n/a	5/29/2019	9200	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-14	540	n/a	5/30/2019	4300	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 10/19/2019, 1:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MW-6**	**0.33**	**n/a**	**5/29/2019**	**9**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-7**	**0.33**	**n/a**	**5/29/2019**	**3.2**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-8**	**0.33**	**n/a**	**5/30/2019**	**14**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-9**	**0.33**	**n/a**	**5/30/2019**	**10**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-10**	**0.33**	**n/a**	**5/30/2019**	**10**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-11**	**0.33**	**n/a**	**5/29/2019**	**4.1**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-13	0.33	n/a	5/29/2019	0.28	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-14**	**0.33**	**n/a**	**5/30/2019**	**14**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**MW-6**	**49**	**n/a**	**5/29/2019**	**250**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-7**	**49**	**n/a**	**5/29/2019**	**440**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-8**	**49**	**n/a**	**5/30/2019**	**470**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-9**	**49**	**n/a**	**5/30/2019**	**230**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-10**	**49**	**n/a**	**5/30/2019**	**440**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-11**	**49**	**n/a**	**5/29/2019**	**190**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-13**	**49**	**n/a**	**5/29/2019**	**640**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-14**	**49**	**n/a**	**5/30/2019**	**230**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-6**	**230**	**n/a**	**5/29/2019**	**2800**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-7**	**230**	**n/a**	**5/29/2019**	**3400**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-8**	**230**	**n/a**	**5/30/2019**	**3700**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-9**	**230**	**n/a**	**5/30/2019**	**2100**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-10**	**230**	**n/a**	**5/30/2019**	**2600**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-11**	**230**	**n/a**	**5/29/2019**	**2900**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-13**	**230**	**n/a**	**5/29/2019**	**4300**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-14**	**230**	**n/a**	**5/30/2019**	**2000**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	MW-6	0.28	n/a	5/29/2019	0.05	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-7	0.28	n/a	5/29/2019	0.1ND	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-8	0.28	n/a	5/30/2019	0.1ND	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-9	0.28	n/a	5/30/2019	0.05	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-10	0.28	n/a	5/30/2019	0.05	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-11	0.28	n/a	5/29/2019	0.1ND	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-13	0.28	n/a	5/29/2019	0.04	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.28	n/a	5/30/2019	0.09	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**MW-6**	**7.473**	**n/a**	**5/29/2019**	**460**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-7**	**7.473**	**n/a**	**5/29/2019**	**870**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-8**	**7.473**	**n/a**	**5/30/2019**	**940**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-9**	**7.473**	**n/a**	**5/30/2019**	**550**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-10**	**7.473**	**n/a**	**5/30/2019**	**800**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-11**	**7.473**	**n/a**	**5/29/2019**	**350**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-13**	**7.473**	**n/a**	**5/29/2019**	**830**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-14**	**7.473**	**n/a**	**5/30/2019**	**550**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-6**	**540**	**n/a**	**5/29/2019**	**5800**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-7**	**540**	**n/a**	**5/29/2019**	**8600**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-8**	**540**	**n/a**	**5/30/2019**	**7700**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-9**	**540**	**n/a**	**5/30/2019**	**4600**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-10**	**540**	**n/a**	**5/30/2019**	**5900**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-11**	**540**	**n/a**	**5/29/2019**	**5600**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-13**	**540**	**n/a**	**5/29/2019**	**9200**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-14**	**540**	**n/a**	**5/30/2019**	**4300**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**

Intrawell Prediction Limit Summary Table - Significant Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/18/2019, 4:27 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (SU)	**MW-12**	**6.26**	**5.841**	**5/28/2019**	**6.62**	**Yes**	**12**	**6.051**	**0.08339**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**
pH (SU)	**MW-14**	**6.92**	**6.62**	**5/30/2019**	**6.96**	**Yes**	**12**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.02155**	**NP Intra (normality) 1 of 2**

Intrawell Prediction Limit Summary Table - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/18/2019, 4:27 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (SU)	MW-10	5.446	5.026	5/30/2019	5.06	No	12	5.236	0.08372	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-11	6.916	6.023	5/29/2019	6.4	No	12	6.469	0.1777	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	**MW-12**	**6.26**	**5.841**	**5/28/2019**	**6.62**	**Yes**	**12**	**6.051**	**0.08339**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**
pH (SU)	MW-13	7.467	6.618	5/29/2019	6.96	No	12	7.043	0.169	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	**MW-14**	**6.92**	**6.62**	**5/30/2019**	**6.96**	**Yes**	**12**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.02155**	**NP Intra (normality) 1 of 2**
pH (SU)	MW-2	7.639	5.067	5/28/2019	6.29	No	12	6.353	0.512	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-3	5.26	4.657	5/28/2019	4.73	No	12	4.958	0.1201	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-6	5.958	4.374	5/29/2019	5.38	No	12	5.166	0.3153	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-7	6.472	5.939	5/29/2019	6.15	No	12	6.206	0.1061	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-8	5.477	3.221	5/30/2019	4.51	No	12	20.19	3.906	0	None	x^2	0.0004701	Param Intra 1 of 2
pH (SU)	MW-9	7.317	4.082	5/30/2019	6.58	No	12	5.699	0.6438	0	None	No	0.0004701	Param Intra 1 of 2

Interwell Trend Tests Summary Table - Significant Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:09 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Fluoride (mg/L)	**MW-12 (bg)**	**0.01611**	**67**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Interwell Trend Tests Summary Table - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:09 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-12 (bg)	-0.02028	-40	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0	10	48	No	14	57.14	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0	1	48	No	14	92.86	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-12 (bg)	2.296	30	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	-1.924	-6	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	0	23	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12 (bg)	0	11	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-1.229	-28	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.6854	47	48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	**MW-12 (bg)**	**0.01611**	**67**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Fluoride (mg/L)	MW-2 (bg)	0.03085	23	48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-3 (bg)	0	-20	-48	No	14	57.14	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-12 (bg)	-0.2199	-31	-48	No	14	57.14	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-0.342	-35	-48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	0	19	48	No	14	85.71	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-12 (bg)	0	-1	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-2 (bg)	-16.9	-19	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-3 (bg)	-4.438	-16	-48	No	14	0	n/a	n/a	0.01	NP

Welch's t-test/Mann-Whitney - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/18/2019, 4:24 PM

Constituent	Well	Calc.	0.01	Method
pH (SU)	MW-10	0.9407	No	Mann-W
pH (SU)	MW-11	-0.5944	No	Mann-W
pH (SU)	MW-12 (bg)	0.3409	No	Mann-W
pH (SU)	MW-13	-2.216	No	Mann-W
pH (SU)	MW-14	1.786	No	Mann-W
pH (SU)	MW-2 (bg)	-0.7643	No	Mann-W
pH (SU)	MW-3 (bg)	-1.274	No	Mann-W
pH (SU)	MW-6	1.957	No	Mann-W
pH (SU)	MW-7	-0.4276	No	Mann-W
pH (SU)	MW-8	-1.446	No	Mann-W
pH (SU)	MW-9	1.446	No	Mann-W

PLANT SMITH GWPS TABLE				
Constituent Name	**MCL**	**Rule-Specified**	**Background**	**GWPS**
Antimony, Total (mg/L)	0.006		0.0025	0.006
Arsenic, Total (mg/L)	0.01		0.0013	0.01
Barium, Total (mg/L)	2		0.029	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.012	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0025	0.006
Combined Radium, Total (pCi/L)	5		3.866	5
Fluoride, Total (mg/L)	4		0.28	4
Lead, Total (mg/L)	0.015		0.0013	0.015
Lithium, Total (mg/L)	n/a	0.04	0.0204	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.0013	0.05
Thallium, Total (mg/L)	0.002		0.0005	0.002

MCL = Maximum Contaminant Level

GWPS = Groundwater Protection Standard

Upper Tolerance Limits - App IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:34 AM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.0025	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Arsenic (mg/L)	0.0013	39	n/a	n/a	97.44	n/a	n/a	0.1353	NP Inter(NDs)
Barium (mg/L)	0.02882	39	0.01705	0.005515	7.692	None	No	0.05	Inter
Beryllium (mg/L)	0.0025	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Cadmium (mg/L)	0.0025	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Chromium (mg/L)	0.012	39	n/a	n/a	46.15	n/a	n/a	0.1353	NP Inter(normality)
Cobalt (mg/L)	0.0025	36	n/a	n/a	100	n/a	n/a	0.1578	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	3.866	39	1.939	0.9027	0	None	No	0.05	Inter
Fluoride (mg/L)	0.28	42	n/a	n/a	19.05	n/a	n/a	0.116	NP Inter(normality)
Lead (mg/L)	0.0013	33	n/a	n/a	93.94	n/a	n/a	0.184	NP Inter(NDs)
Lithium (mg/L)	0.02038	39	0.0093	0.005191	15.38	Cohen`s	No	0.05	Inter
Mercury (mg/L)	0.0002	30	n/a	n/a	96.67	n/a	n/a	0.2146	NP Inter(NDs)
Molybdenum (mg/L)	0.015	39	n/a	n/a	94.87	n/a	n/a	0.1353	NP Inter(NDs)
Selenium (mg/L)	0.0013	36	n/a	n/a	91.67	n/a	n/a	0.1578	NP Inter(NDs)
Thallium (mg/L)	0.0005	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)

Confidence Intervals - Significant Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Arsenic (mg/L)	**MW-11**	**0.02802**	**0.01752**	**0.01**	**Yes**	**13**	**0.02277**	**0.007061**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**25.46**	**19.52**	**5**	**Yes**	**13**	**22.49**	**3.993**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**34.1**	**25.58**	**5**	**Yes**	**13**	**29.84**	**5.726**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**16.65**	**11.36**	**5**	**Yes**	**13**	**14.01**	**3.555**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.198**	**5.591**	**5**	**Yes**	**13**	**7.395**	**2.425**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**33.19**	**24.07**	**5**	**Yes**	**13**	**28.63**	**6.128**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**49.7**	**20.7**	**5**	**Yes**	**13**	**30.28**	**11.52**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**42.02**	**33.86**	**5**	**Yes**	**13**	**37.94**	**5.491**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**27.56**	**15.03**	**5**	**Yes**	**13**	**21.29**	**8.425**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**MW-13**	**0.26**	**0.17**	**0.04**	**Yes**	**13**	**0.2046**	**0.03573**	**0**	**None**	**No**	**0.01**	**NP (normality)**

Confidence Intervals - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Antimony (mg/L)	MW-10	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-11	0.0025	0.0015	0.006	No	10	0.00212	0.0005051	60	None	No	0.011	NP (normality)
Antimony (mg/L)	MW-12 (bg)	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-13	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-14	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-2 (bg)	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-3 (bg)	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-6	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-7	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-8	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-9	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-10	0.003274	0.002065	0.01	No	13	0.002669	0.0008128	7.692	None	No	0.01	Param.
Arsenic (mg/L)	**MW-11**	**0.02802**	**0.01752**	**0.01**	**Yes**	**13**	**0.02277**	**0.007061**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	MW-12 (bg)	0.0013	0.0013	0.01	No	13	0.0013	0	100	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-13	0.002	0.00051	0.01	No	13	0.001318	0.0008321	15.38	None	No	0.01	NP (Cohens/xfrm)
Arsenic (mg/L)	MW-14	0.004799	0.002847	0.01	No	13	0.003823	0.001312	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-2 (bg)	0.0013	0.0013	0.01	No	13	0.0013	0	100	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-3 (bg)	0.0013	0.00085	0.01	No	13	0.001265	0.0001248	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-6	0.001519	0.0008694	0.01	No	13	0.001098	0.0003323	30.77	Cohen`s	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001845	0.001036	0.01	No	13	0.00153	0.0004508	23.08	Cohen`s	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001608	0.001147	0.01	No	13	0.001428	0.0002573	23.08	Cohen`s	No	0.01	Param.
Arsenic (mg/L)	MW-9	0.003511	0.00215	0.01	No	13	0.002831	0.000915	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-10	0.1184	0.1013	2	No	13	0.1098	0.01151	0	None	No	0.01	Param.
Barium (mg/L)	MW-11	0.1398	0.087	2	No	13	0.1134	0.03554	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-12 (bg)	0.017	0.012	2	No	13	0.01573	0.007032	7.692	None	No	0.01	NP (normality)
Barium (mg/L)	MW-13	0.1373	0.09255	2	No	13	0.1149	0.03008	0	None	No	0.01	Param.
Barium (mg/L)	MW-14	0.05885	0.04923	2	No	13	0.05404	0.006469	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-2 (bg)	0.02843	0.01657	2	No	13	0.0225	0.007974	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-3 (bg)	0.022	0.016	2	No	13	0.01996	0.005882	7.692	None	No	0.01	NP (normality)
Barium (mg/L)	MW-6	0.07231	0.05746	2	No	13	0.06488	0.009979	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.15	0.055	2	No	13	0.08112	0.04028	7.692	None	No	0.01	NP (normality)
Barium (mg/L)	MW-8	0.07188	0.05604	2	No	13	0.06396	0.01065	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-9	0.1029	0.07361	2	No	13	0.08827	0.01971	7.692	None	No	0.01	Param.
Beryllium (mg/L)	MW-10	0.0025	0.00037	0.004	No	12	0.0008	0.000799	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-11	0.0025	0.00092	0.004	No	12	0.001892	0.0007612	50	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-13	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-14	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-2 (bg)	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-3 (bg)	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-6	0.00189	0.0009912	0.004	No	12	0.001441	0.000573	8.333	None	No	0.01	Param.
Beryllium (mg/L)	MW-7	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-8	0.0016	0.0011	0.004	No	12	0.001433	0.0003651	8.333	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-9	0.0025	0.00043	0.004	No	12	0.001734	0.0009618	58.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	MW-10	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-11	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-13	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-14	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-2 (bg)	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-3 (bg)	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-6	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-7	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-8	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-9	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)

Confidence Intervals - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Chromium (mg/L)	MW-10	0.003	0.0015	0.1	No	13	0.002462	0.0003203	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-11	0.0048	0.0025	0.1	No	12	0.003833	0.001707	16.67	None	No	0.01	NP (Cohens/xfrm)
Chromium (mg/L)	MW-12 (bg)	0.012	0.0025	0.1	No	13	0.003231	0.002635	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-13	0.0025	0.0024	0.1	No	13	0.002492	0.00002773	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-14	0.0025	0.0017	0.1	No	13	0.002338	0.0004073	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-2 (bg)	0.0033	0.0018	0.1	No	13	0.002662	0.001324	23.08	None	No	0.01	NP (Cohens/xfrm)
Chromium (mg/L)	MW-3 (bg)	0.0049	0.0021	0.1	No	13	0.003092	0.001487	23.08	None	No	0.01	NP (normality)
Chromium (mg/L)	MW-6	0.0025	0.0025	0.1	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-7	0.0025	0.0012	0.1	No	13	0.002108	0.000741	46.15	None	No	0.01	NP (normality)
Chromium (mg/L)	MW-8	0.0025	0.0025	0.1	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-9	0.0025	0.0025	0.1	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-10	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-11	0.0025	0.00046	0.006	No	12	0.00233	0.0005889	91.67	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-12 (bg)	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-13	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-14	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-2 (bg)	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-3 (bg)	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-6	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-7	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-8	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-9	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**25.46**	**19.52**	**5**	**Yes**	**13**	**22.49**	**3.993**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**34.1**	**25.58**	**5**	**Yes**	**13**	**29.84**	**5.726**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-12 (bg)	2.69	1.81	5	No	13	2.296	1.003	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**16.65**	**11.36**	**5**	**Yes**	**13**	**14.01**	**3.555**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.198**	**5.591**	**5**	**Yes**	**13**	**7.395**	**2.425**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-2 (bg)	2.66	1.151	5	No	13	1.958	1.075	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-3 (bg)	1.832	1.297	5	No	13	1.565	0.3594	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**33.19**	**24.07**	**5**	**Yes**	**13**	**28.63**	**6.128**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**49.7**	**20.7**	**5**	**Yes**	**13**	**30.28**	**11.52**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**42.02**	**33.86**	**5**	**Yes**	**13**	**37.94**	**5.491**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**27.56**	**15.03**	**5**	**Yes**	**13**	**21.29**	**8.425**	**0**	**None**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-10	0.1	0.04	4	No	14	0.07643	0.02872	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-11	0.1	0.05	4	No	14	0.08857	0.02282	78.57	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-12 (bg)	0.1175	0.09104	4	No	14	0.1043	0.01869	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-13	0.1	0.04	4	No	13	0.05615	0.02293	7.692	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-14	0.08191	0.04781	4	No	14	0.06486	0.02407	7.143	None	No	0.01	Param.
Fluoride (mg/L)	MW-2 (bg)	0.2159	0.09977	4	No	14	0.1579	0.08201	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-3 (bg)	0.1	0.04	4	No	14	0.07429	0.03081	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-6	0.1	0.04	4	No	14	0.06036	0.02422	21.43	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-7	0.1	0.04	4	No	14	0.08336	0.02736	71.43	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-8	0.1	0.1	4	No	14	0.1	0	100	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-9	0.1	0.04	4	No	14	0.06121	0.02727	28.57	None	No	0.01	NP (normality)
Lead (mg/L)	MW-10	0.0013	0.0013	0.015	No	10	0.0013	0	100	None	No	0.011	NP (NDs)
Lead (mg/L)	MW-11	0.0013	0.0013	0.015	No	11	0.0013	1.1e-12	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-12 (bg)	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-13	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-14	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-2 (bg)	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-3 (bg)	0.0013	0.00039	0.015	No	11	0.001135	0.0003681	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-6	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-7	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-8	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-9	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)

Confidence Intervals - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Lithium (mg/L)	MW-10	0.006237	0.004749	0.04	No	13	0.005592	0.0008846	15.38	Cohen`s	No	0.01	Param.
Lithium (mg/L)	MW-11	0.011	0.0038	0.04	No	13	0.0057	0.002731	53.85	None	No	0.01	NP (normality)
Lithium (mg/L)	MW-12 (bg)	0.01518	0.008723	0.04	No	13	0.0121	0.00469	7.692	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	**MW-13**	**0.26**	**0.17**	**0.04**	**Yes**	**13**	**0.2046**	**0.03573**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Lithium (mg/L)	MW-14	0.005	0.002	0.04	No	13	0.0043	0.001356	76.92	None	No	0.01	NP (NDs)
Lithium (mg/L)	MW-2 (bg)	0.00769	0.003433	0.04	No	13	0.005562	0.002863	30.77	None	No	0.01	Param.
Lithium (mg/L)	MW-3 (bg)	0.01351	0.009659	0.04	No	13	0.01158	0.00259	7.692	None	No	0.01	Param.
Lithium (mg/L)	MW-6	0.02097	0.01068	0.04	No	13	0.01582	0.006918	7.692	None	No	0.01	Param.
Lithium (mg/L)	MW-7	0.005	0.002	0.04	No	13	0.004062	0.001419	61.54	None	No	0.01	NP (normality)
Lithium (mg/L)	MW-8	0.011	0.0067	0.04	No	13	0.008192	0.002587	15.38	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	MW-9	0.007715	0.002957	0.04	No	13	0.005523	0.003672	7.692	None	sqrt(x)	0.01	Param.
Mercury (mg/L)	MW-10	0.0002	0.0002	0.002	No	10	0.0001889	0.0000351	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-11	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-12 (bg)	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-13	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-14	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-2 (bg)	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-3 (bg)	0.0002	0.0002	0.002	No	10	0.0001871	0.00004079	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-6	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-7	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-8	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-9	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	MW-10	0.015	0.001	0.1	No	13	0.007244	0.006435	38.46	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-11	0.01488	0.009309	0.1	No	13	0.01209	0.003744	7.692	None	No	0.01	Param.
Molybdenum (mg/L)	MW-12 (bg)	0.015	0.015	0.1	No	13	0.015	0	100	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-13	0.02958	0.01254	0.1	No	13	0.02106	0.01146	7.692	None	No	0.01	Param.
Molybdenum (mg/L)	MW-14	0.01746	0.0139	0.1	No	13	0.01556	0.00272	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	MW-2 (bg)	0.015	0.0011	0.1	No	13	0.01285	0.005258	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-3 (bg)	0.015	0.015	0.1	No	13	0.015	0	100	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-6	0.015	0.0011	0.1	No	13	0.01393	0.003855	92.31	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-7	0.015	0.0042	0.1	No	13	0.009338	0.004829	38.46	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-8	0.015	0.015	0.1	No	13	0.015	0	100	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-9	0.015	0.0023	0.1	No	13	0.01033	0.006232	61.54	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-10	0.0013	0.00041	0.05	No	12	0.001138	0.0003791	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-11	0.0013	0.00051	0.05	No	12	0.0009925	0.0003829	58.33	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-12 (bg)	0.0013	0.0013	0.05	No	12	0.0013	0	100	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-13	0.0013	0.00044	0.05	No	12	0.001113	0.000364	75	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-14	0.0013	0.00041	0.05	No	12	0.001138	0.0003812	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-2 (bg)	0.0013	0.00038	0.05	No	12	0.001223	0.0002656	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-3 (bg)	0.0013	0.00069	0.05	No	12	0.001166	0.0003242	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-6	0.0013	0.00027	0.05	No	12	0.001041	0.0004505	66.67	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-7	0.0013	0.00028	0.05	No	12	0.00099	0.0004661	66.67	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-8	0.0013	0.00032	0.05	No	12	0.001053	0.0004011	66.67	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-9	0.0013	0.00035	0.05	No	12	0.00114	0.0003737	83.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MW-10	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-11	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-12 (bg)	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-13	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-14	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-2 (bg)	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-3 (bg)	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-6	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-7	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-8	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-9	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)

Prediction Limits - Interwell

Interwell Prediction Limits - Significant Results

Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 10/19/2019, 1:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-6	0.33	n/a	5/29/2019	9	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-7	0.33	n/a	5/29/2019	3.2	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-8	0.33	n/a	5/30/2019	14	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-9	0.33	n/a	5/30/2019	10	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-10	0.33	n/a	5/30/2019	10	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-11	0.33	n/a	5/29/2019	4.1	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-14	0.33	n/a	5/30/2019	14	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-6	49	n/a	5/29/2019	250	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-7	49	n/a	5/29/2019	440	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-8	49	n/a	5/30/2019	470	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-9	49	n/a	5/30/2019	230	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-10	49	n/a	5/30/2019	440	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-11	49	n/a	5/29/2019	190	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-13	49	n/a	5/29/2019	640	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Calcium (mg/L)	MW-14	49	n/a	5/30/2019	230	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-6	230	n/a	5/29/2019	2800	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-7	230	n/a	5/29/2019	3400	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-8	230	n/a	5/30/2019	3700	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-9	230	n/a	5/30/2019	2100	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-10	230	n/a	5/30/2019	2600	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-11	230	n/a	5/29/2019	2900	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-13	230	n/a	5/29/2019	4300	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Chloride (mg/L)	MW-14	230	n/a	5/30/2019	2000	42	n/a	n/a	0	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Sulfate (mg/L)	MW-6	7.473	n/a	5/29/2019	460	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-7	7.473	n/a	5/29/2019	870	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-8	7.473	n/a	5/30/2019	940	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-9	7.473	n/a	5/30/2019	550	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-10	7.473	n/a	5/30/2019	800	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-11	7.473	n/a	5/29/2019	350	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-13	7.473	n/a	5/29/2019	830	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-14	7.473	n/a	5/30/2019	550	42	n/a	n/a	59.52	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-6	540	n/a	5/29/2019	5800	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-7	540	n/a	5/29/2019	8600	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-8	540	n/a	5/30/2019	7700	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-9	540	n/a	5/30/2019	4600	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-10	540	n/a	5/30/2019	5900	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	540	n/a	5/29/2019	5600	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-13	540	n/a	5/29/2019	9200	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-14	540	n/a	5/30/2019	4300	41	n/a	n/a	0	n/a	n/a	0.00108	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

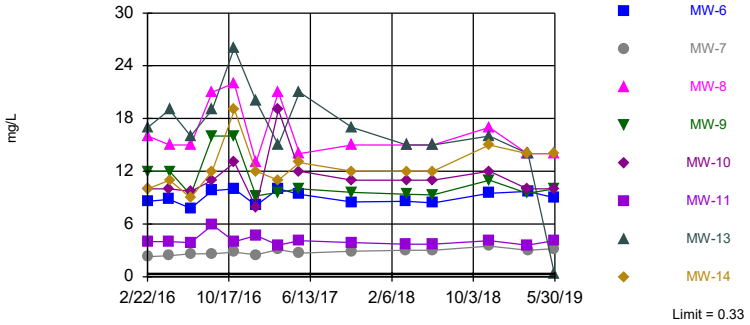
Plant Smith Client: Gulf Power Data: Plant Smith CCR Printed 10/19/2019, 1:38 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MW-6**	**0.33**	**n/a**	**5/29/2019**	**9**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-7**	**0.33**	**n/a**	**5/29/2019**	**3.2**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-8**	**0.33**	**n/a**	**5/30/2019**	**14**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-9**	**0.33**	**n/a**	**5/30/2019**	**10**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-10**	**0.33**	**n/a**	**5/30/2019**	**10**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-11**	**0.33**	**n/a**	**5/29/2019**	**4.1**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-13	0.33	n/a	5/29/2019	0.28	42	n/a	n/a	54.76	n/a	n/a	0.001041	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-14**	**0.33**	**n/a**	**5/30/2019**	**14**	**42**	**n/a**	**n/a**	**54.76**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**MW-6**	**49**	**n/a**	**5/29/2019**	**250**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-7**	**49**	**n/a**	**5/29/2019**	**440**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-8**	**49**	**n/a**	**5/30/2019**	**470**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-9**	**49**	**n/a**	**5/30/2019**	**230**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-10**	**49**	**n/a**	**5/30/2019**	**440**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-11**	**49**	**n/a**	**5/29/2019**	**190**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-13**	**49**	**n/a**	**5/29/2019**	**640**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**MW-14**	**49**	**n/a**	**5/30/2019**	**230**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-6**	**230**	**n/a**	**5/29/2019**	**2800**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-7**	**230**	**n/a**	**5/29/2019**	**3400**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-8**	**230**	**n/a**	**5/30/2019**	**3700**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-9**	**230**	**n/a**	**5/30/2019**	**2100**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-10**	**230**	**n/a**	**5/30/2019**	**2600**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-11**	**230**	**n/a**	**5/29/2019**	**2900**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-13**	**230**	**n/a**	**5/29/2019**	**4300**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**MW-14**	**230**	**n/a**	**5/30/2019**	**2000**	**42**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.001041**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	MW-6	0.28	n/a	5/29/2019	0.05	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-7	0.28	n/a	5/29/2019	0.1ND	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-8	0.28	n/a	5/30/2019	0.1ND	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-9	0.28	n/a	5/30/2019	0.05	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-10	0.28	n/a	5/30/2019	0.05	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-11	0.28	n/a	5/29/2019	0.1ND	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-13	0.28	n/a	5/29/2019	0.04	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.28	n/a	5/30/2019	0.09	42	n/a	n/a	19.05	n/a	n/a	0.001041	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**MW-6**	**7.473**	**n/a**	**5/29/2019**	**460**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-7**	**7.473**	**n/a**	**5/29/2019**	**870**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-8**	**7.473**	**n/a**	**5/30/2019**	**940**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-9**	**7.473**	**n/a**	**5/30/2019**	**550**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-10**	**7.473**	**n/a**	**5/30/2019**	**800**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-11**	**7.473**	**n/a**	**5/29/2019**	**350**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-13**	**7.473**	**n/a**	**5/29/2019**	**830**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-14**	**7.473**	**n/a**	**5/30/2019**	**550**	**42**	**n/a**	**n/a**	**59.52**	**n/a**	**n/a**	**0.001041**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-6**	**540**	**n/a**	**5/29/2019**	**5800**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-7**	**540**	**n/a**	**5/29/2019**	**8600**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-8**	**540**	**n/a**	**5/30/2019**	**7700**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-9**	**540**	**n/a**	**5/30/2019**	**4600**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-10**	**540**	**n/a**	**5/30/2019**	**5900**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-11**	**540**	**n/a**	**5/29/2019**	**5600**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-13**	**540**	**n/a**	**5/29/2019**	**9200**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-14**	**540**	**n/a**	**5/30/2019**	**4300**	**41**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00108**	**NP Inter (normality) 1 of 2**

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 42 background values. 54.76% NDs. Annual per-constituent alpha = 0.01653. Individual comparison alpha = 0.001041 (1 of 2). Comparing 8 points to limit.

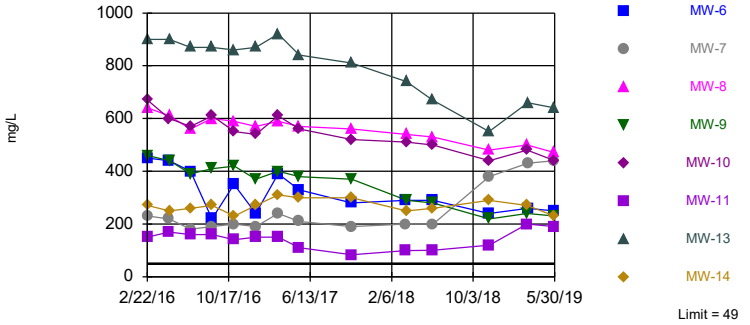
Constituent: Boron Analysis Run 10/19/2019 1:36 PM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. Annual per-constituent alpha = 0.01653. Individual comparison alpha = 0.001041 (1 of 2). Comparing 8 points to limit.

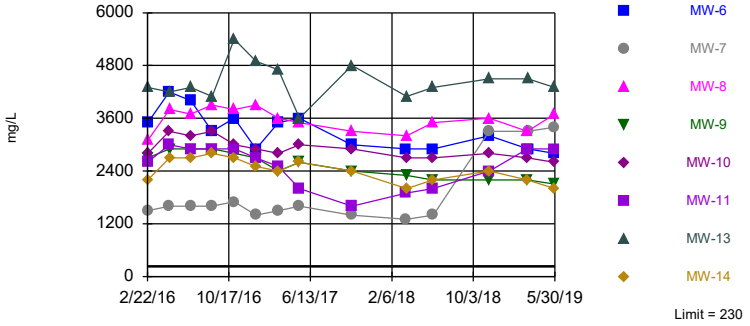
Constituent: Calcium Analysis Run 10/19/2019 1:36 PM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. Annual per-constituent alpha = 0.01653. Individual comparison alpha = 0.001041 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 10/19/2019 1:36 PM View: PL's

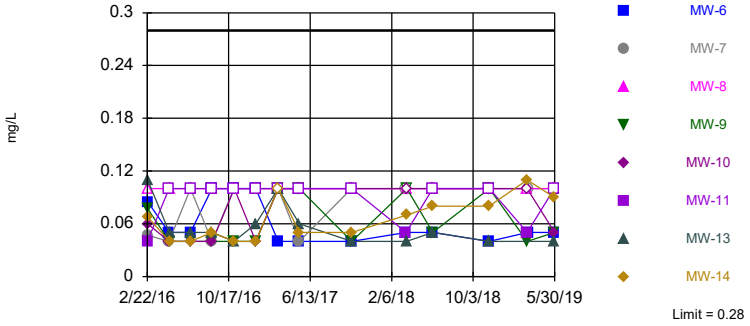
Plant Smith Client: Gulf Power Data: Plant Smith CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 42 background values. 19.05% NDs. Annual per-constituent alpha = 0.01653. Individual comparison alpha = 0.001041 (1 of 2). Comparing 8 points to limit.

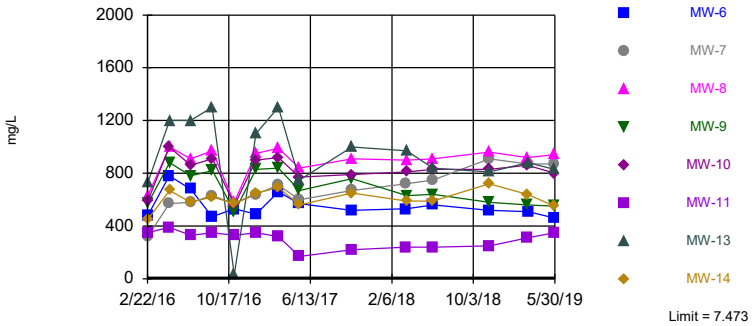
Constituent: Fluoride Analysis Run 10/19/2019 1:36 PM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 42 background values. 59.52% NDs. Annual per-constituent alpha = 0.01653. Individual comparison alpha = 0.001041 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 10/19/2019 1:36 PM View: PL's

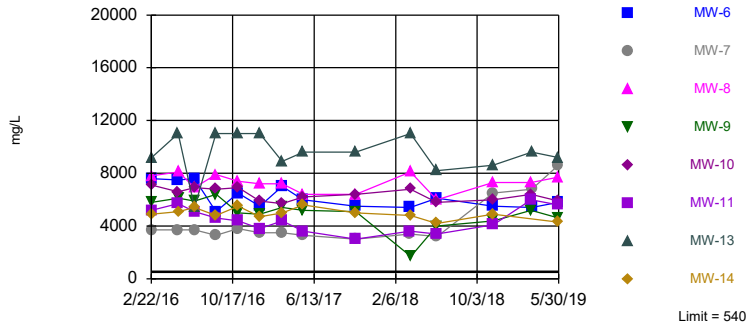
Plant Smith Client: Gulf Power Data: Plant Smith CCR

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Exceeds Limit: MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 41 background values. Annual per-constituent alpha = 0.01714. Individual comparison alpha = 0.00108 (1 of 2). Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 10/19/2019 1:36 PM View: PL's

Plant Smith Client: Gulf Power Data: Plant Smith CCR

Prediction Limits - Intrawell

Intrawell Prediction Limit Summary Table - Significant Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/18/2019, 4:27 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (SU)	**MW-12**	**6.26**	**5.841**	**5/28/2019**	**6.62**	**Yes**	**12**	**6.051**	**0.08339**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**
pH (SU)	**MW-14**	**6.92**	**6.62**	**5/30/2019**	**6.96**	**Yes**	**12**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.02155**	**NP Intra (normality) 1 of 2**

Intrawell Prediction Limit Summary Table - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/18/2019, 4:27 PM

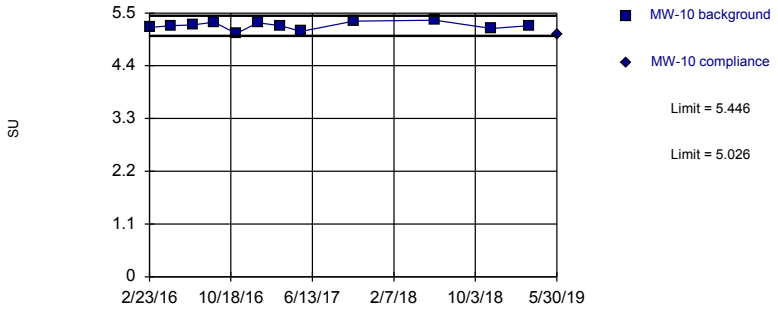
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (SU)	MW-10	5.446	5.026	5/30/2019	5.06	No	12	5.236	0.08372	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-11	6.916	6.023	5/29/2019	6.4	No	12	6.469	0.1777	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	**MW-12**	**6.26**	**5.841**	**5/28/2019**	**6.62**	**Yes**	**12**	**6.051**	**0.08339**	**0**	**None**	**No**	**0.0004701**	**Param Intra 1 of 2**
pH (SU)	MW-13	7.467	6.618	5/29/2019	6.96	No	12	7.043	0.169	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	**MW-14**	**6.92**	**6.62**	**5/30/2019**	**6.96**	**Yes**	**12**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.02155**	**NP Intra (normality) 1 of 2**
pH (SU)	MW-2	7.639	5.067	5/28/2019	6.29	No	12	6.353	0.512	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-3	5.26	4.657	5/28/2019	4.73	No	12	4.958	0.1201	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-6	5.958	4.374	5/29/2019	5.38	No	12	5.166	0.3153	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-7	6.472	5.939	5/29/2019	6.15	No	12	6.206	0.1061	0	None	No	0.0004701	Param Intra 1 of 2
pH (SU)	MW-8	5.477	3.221	5/30/2019	4.51	No	12	20.19	3.906	0	None	x^2	0.0004701	Param Intra 1 of 2
pH (SU)	MW-9	7.317	4.082	5/30/2019	6.58	No	12	5.699	0.6438	0	None	No	0.0004701	Param Intra 1 of 2

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Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.236, Std. Dev.=0.08372, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9486, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

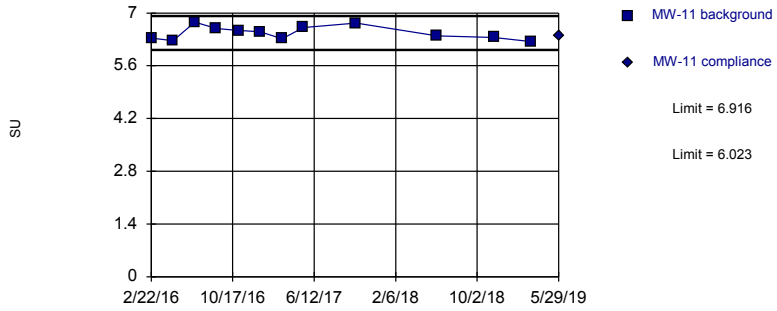
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.469, Std. Dev.=0.1777, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9283, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

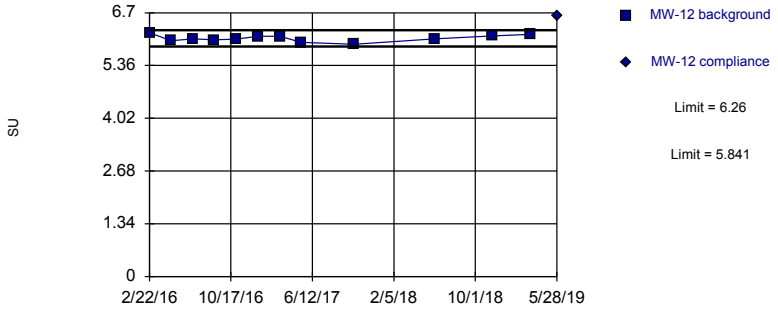
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.051, Std. Dev.=0.08339, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9827, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

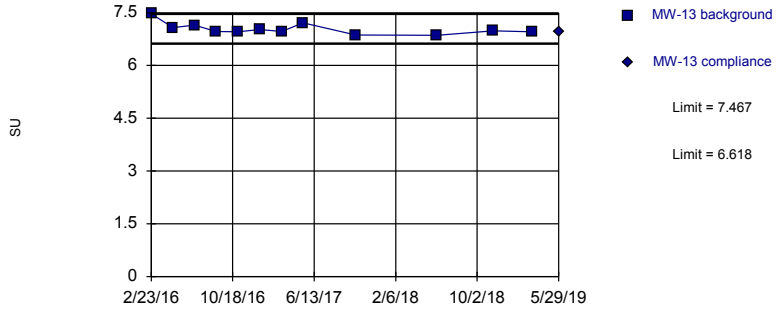
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.043, Std. Dev.=0.169, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8469, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-10
2/23/2016	5.2 (B01)	
4/26/2016	5.24 (B02)	
6/28/2016	5.25 (B03)	
8/30/2016	5.31 (B04)	
11/3/2016	5.07 (B05)	
1/5/2017	5.3 (B06)	
3/11/2017	5.24 (B07)	
5/12/2017	5.12 (B08)	
10/13/2017	5.33	
6/7/2018	5.35	
11/20/2018	5.18	
3/11/2019	5.24	
5/30/2019		5.06

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-11	MW-11
2/22/2016	6.33 (B01)	
4/26/2016	6.27 (B02)	
6/28/2016	6.76 (B03)	
8/30/2016	6.59 (B04)	
11/3/2016	6.54 (B05)	
1/5/2017	6.5 (B06)	
3/11/2017	6.32 (B07)	
5/12/2017	6.61 (B08)	
10/13/2017	6.73	
6/7/2018	6.39	
11/20/2018	6.35	
3/11/2019	6.24	
5/29/2019		6.4

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-12	MW-12
2/22/2016	6.19 (B01)	
4/26/2016	5.99 (B02)	
6/27/2016	6.04 (B03)	
8/29/2016	6.01 (B04)	
11/1/2016	6.03 (B05)	
1/4/2017	6.1 (B06)	
3/10/2017	6.1 (B07)	
5/11/2017	5.95 (B08)	
10/12/2017	5.9	
6/6/2018	6.04	
11/19/2018	6.11	
3/11/2019	6.15	
5/28/2019		6.62

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

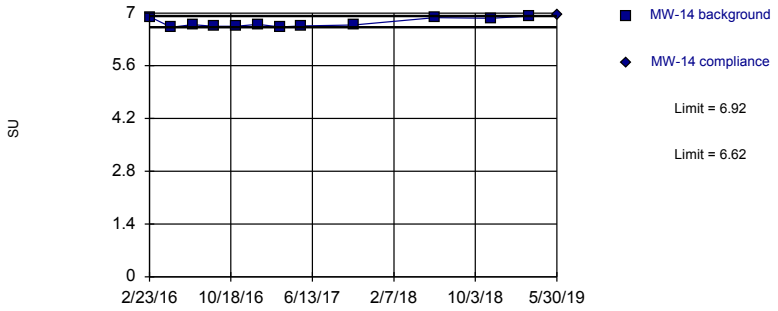
Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-13	MW-13
2/23/2016	7.47 (B01)	
4/27/2016	7.08 (B02)	
6/28/2016	7.15 (B03)	
8/29/2016	6.97 (B04)	
11/2/2016	6.96 (B05)	
1/5/2017	7.02 (B06)	
3/11/2017	6.97 (B07)	
5/12/2017	7.21 (B08)	
10/13/2017	6.87	
6/7/2018	6.86	
11/19/2018	6.99	
3/12/2019	6.96	
5/29/2019		6.96

Exceeds Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 12 background values. Well-constituent pair annual alpha = 0.04286. Individual comparison alpha = 0.02155 (1 of 2).

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

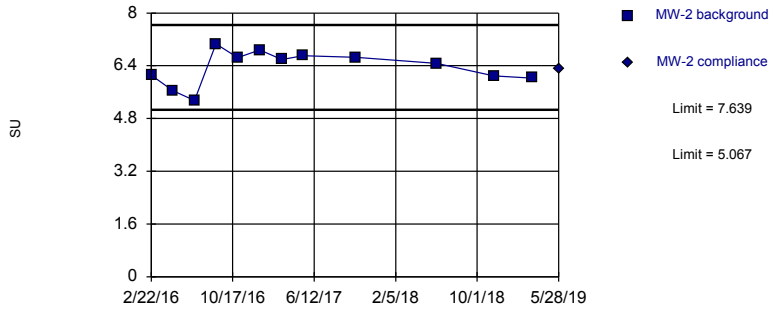
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.353, Std. Dev.=0.512, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.94, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

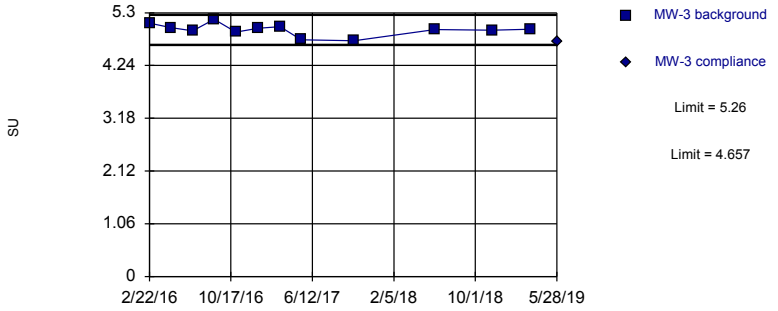
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.958, Std. Dev.=0.1201, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

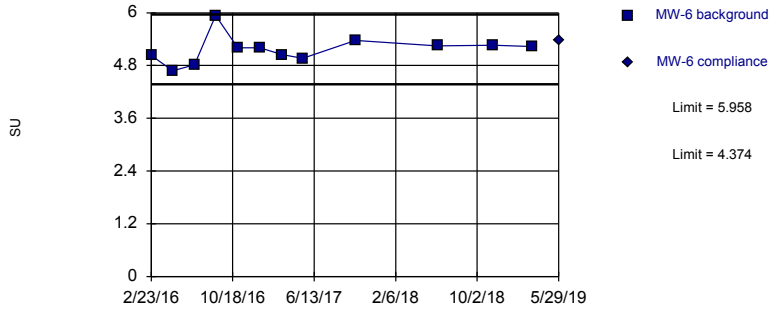
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.166, Std. Dev.=0.3153, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9049, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-14	MW-14
2/23/2016	6.9 (B01)	
4/27/2016	6.62 (B02)	
6/28/2016	6.69 (B03)	
8/29/2016	6.65 (B04)	
11/2/2016	6.65 (B05)	
1/5/2017	6.7 (B06)	
3/11/2017	6.63 (B07)	
5/12/2017	6.66 (B08)	
10/13/2017	6.68	
6/7/2018	6.88	
11/19/2018	6.86	
3/11/2019	6.92	
5/30/2019		6.96

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-2	MW-2
2/22/2016	6.11 (B01)	
4/25/2016	5.65 (B02)	
6/27/2016	5.35 (B03)	
8/29/2016	7.06 (B04)	
11/1/2016	6.65 (B05)	
1/4/2017	6.88 (B06)	
3/10/2017	6.59 (B07)	
5/11/2017	6.7 (B08)	
10/12/2017	6.66	
6/6/2018	6.47	
11/19/2018	6.09	
3/11/2019	6.03	
5/28/2019		6.29

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3	MW-3
2/22/2016	5.09 (B01)	
4/25/2016	5 (B02)	
6/27/2016	4.94 (B03)	
8/29/2016	5.17 (B04)	
11/1/2016	4.91 (B05)	
1/4/2017	4.99 (B06)	
3/10/2017	5.02 (B07)	
5/11/2017	4.76 (B08)	
10/12/2017	4.74	
6/6/2018	4.96	
11/19/2018	4.95	
3/11/2019	4.97	
5/28/2019		4.73

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

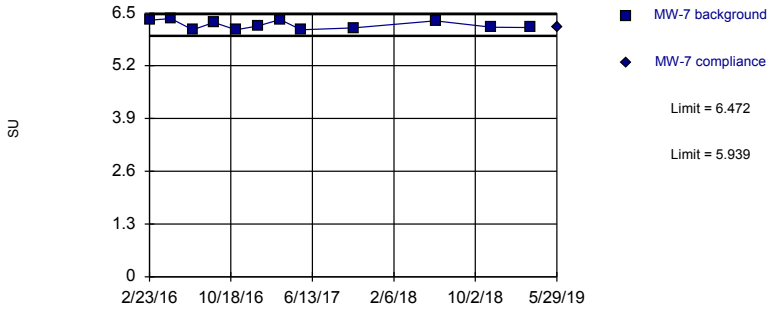
Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-6	MW-6
2/23/2016	5.03 (B01)	
4/26/2016	4.68 (B02)	
6/28/2016	4.82 (B03)	
8/29/2016	5.94 (B04)	
11/2/2016	5.2 (B05)	
1/5/2017	5.2 (B06)	
3/11/2017	5.05 (B07)	
5/11/2017	4.96 (B08)	
10/12/2017	5.37	
6/8/2018	5.25	
11/19/2018	5.26	
3/12/2019	5.23	
5/29/2019		5.38

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.206, Std. Dev.=0.1061, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

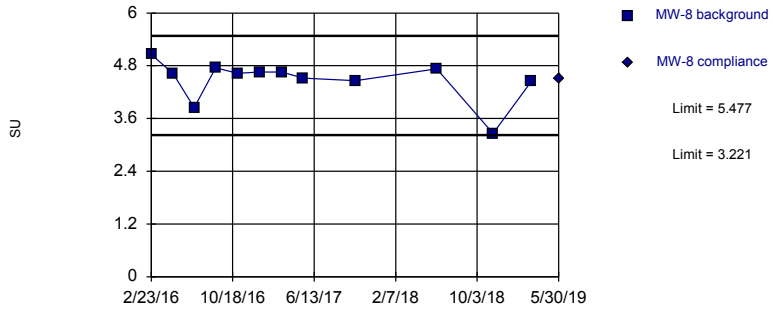
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=20.19, Std. Dev.=3.906, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8305, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

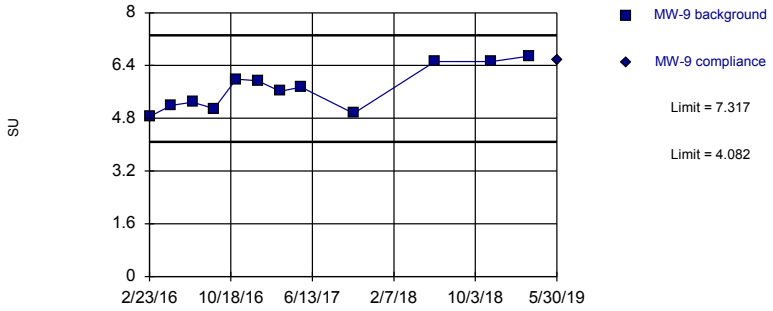
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.699, Std. Dev.=0.6438, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9266, critical = 0.805. Kappa = 2.512 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 10/18/2019 4:25 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-7	MW-7
2/23/2016	6.32 (B01)	
4/26/2016	6.36 (B02)	
6/28/2016	6.09 (B03)	
8/29/2016	6.27 (B04)	
11/2/2016	6.09 (B05)	
1/5/2017	6.18 (B06)	
3/11/2017	6.34 (B07)	
5/12/2017	6.09 (B08)	
10/12/2017	6.13	
6/8/2018	6.31	
11/19/2018	6.15	
3/12/2019	6.14	
5/29/2019		6.15

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-8	MW-8
2/23/2016	5.06 (B01)	
4/27/2016	4.62 (B02)	
6/28/2016	3.85 (B03)	
8/29/2016	4.75 (B04)	
11/2/2016	4.63 (B05)	
1/5/2017	4.66 (B06)	
3/11/2017	4.66 (B07)	
5/12/2017	4.52 (B08)	
10/13/2017	4.46	
6/7/2018	4.73	
11/19/2018	3.26	
3/11/2019	4.44	
5/30/2019		4.51

Prediction Limit

Constituent: pH (SU) Analysis Run 10/18/2019 4:27 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-9	MW-9
2/23/2016	4.85 (B01)	
4/27/2016	5.19 (B02)	
6/28/2016	5.29 (B03)	
8/30/2016	5.09 (B04)	
11/3/2016	5.99 (B05)	
1/5/2017	5.94 (B06)	
3/11/2017	5.62 (B07)	
5/12/2017	5.74 (B08)	
10/13/2017	4.95	
6/7/2018	6.52	
11/20/2018	6.52	
3/11/2019	6.69	
5/30/2019		6.58

Trend Tests - Prediction Limit Exceedances

Trend Tests Summary Table - PL Exceedances (No Significant)

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 8:47 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH (SU)	MW-12 (bg)	0.03986	20	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	MW-14	0.08532	35	43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	MW-2 (bg)	-0.1048	-8	-43	No	13	0	n/a	n/a	0.01	NP
pH (SU)	MW-3 (bg)	-0.05394	-32	-43	No	13	0	n/a	n/a	0.01	NP

Interwell Trend Tests Summary Table - Significant Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:09 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Fluoride (mg/L)	**MW-12 (bg)**	**0.01611**	**67**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Interwell Trend Tests Summary Table - All Results

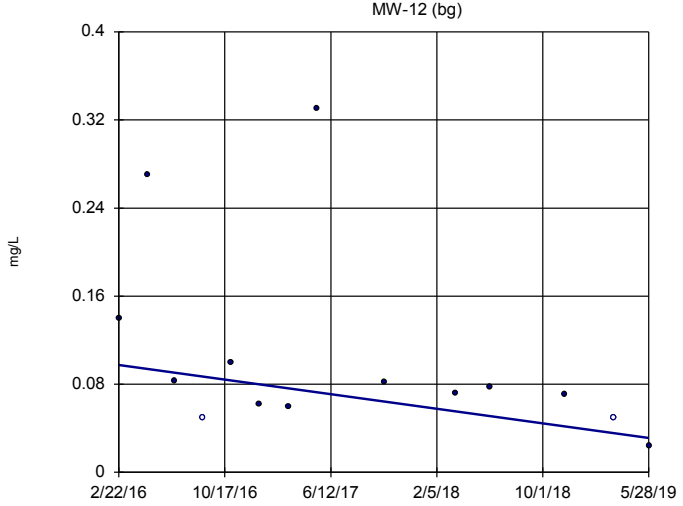
Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:09 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-12 (bg)	-0.02028	-40	-48	No	14	14.29	n/a	n/a	0.01	NP
Boron (mg/L)	MW-2 (bg)	0	10	48	No	14	57.14	n/a	n/a	0.01	NP
Boron (mg/L)	MW-3 (bg)	0	1	48	No	14	92.86	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-12 (bg)	2.296	30	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	-1.924	-6	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3 (bg)	0	23	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-12 (bg)	0	11	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	-1.229	-28	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3 (bg)	0.6854	47	48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	**MW-12 (bg)**	**0.01611**	**67**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Fluoride (mg/L)	MW-2 (bg)	0.03085	23	48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-3 (bg)	0	-20	-48	No	14	57.14	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-12 (bg)	-0.2199	-31	-48	No	14	57.14	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	-0.342	-35	-48	No	14	35.71	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-3 (bg)	0	19	48	No	14	85.71	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-12 (bg)	0	-1	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-2 (bg)	-16.9	-19	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-3 (bg)	-4.438	-16	-48	No	14	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12 (bg)



n = 14

Slope = -0.02028 units per year.

Mann-Kendall statistic = -40
critical = -48

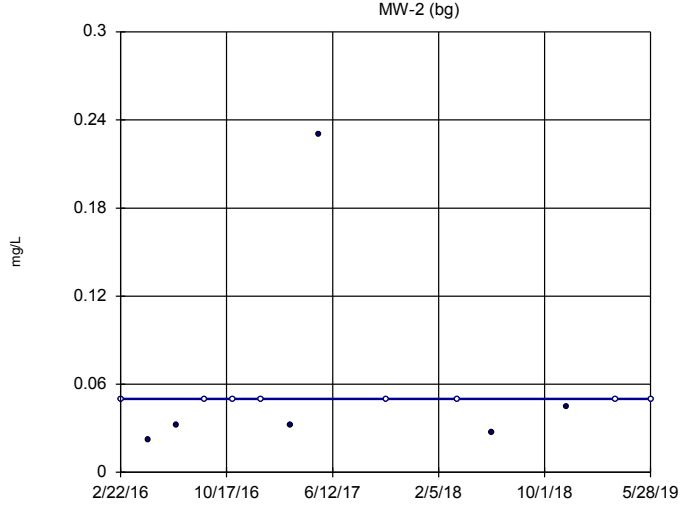
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/15/2019 9:06 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 10
critical = 48

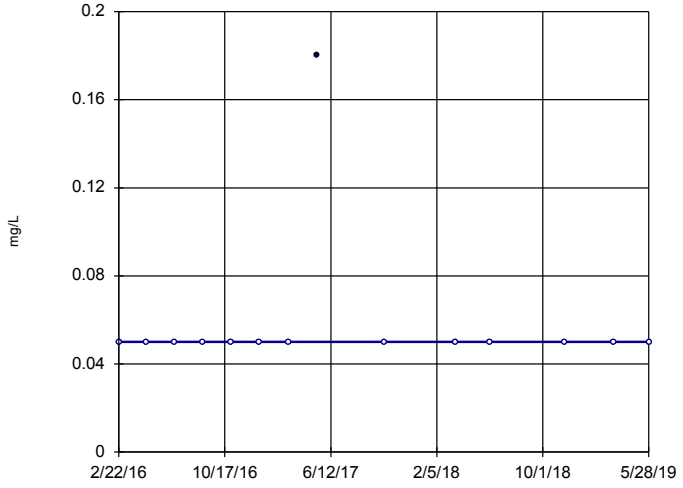
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/15/2019 9:06 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 48

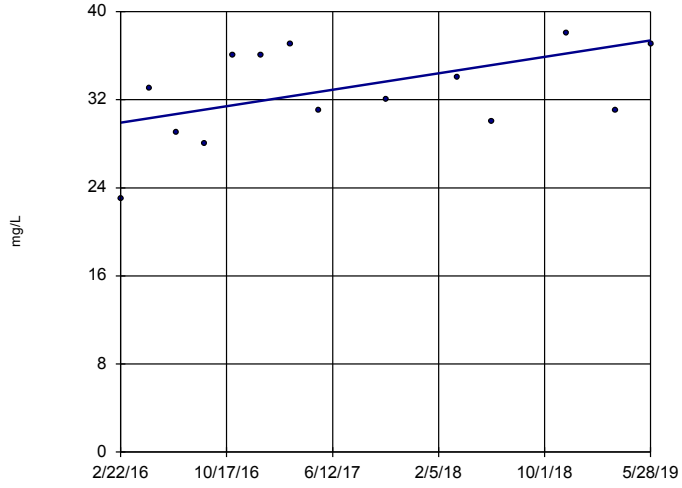
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/15/2019 9:06 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-12 (bg)



n = 14

Slope = 2.296 units per year.

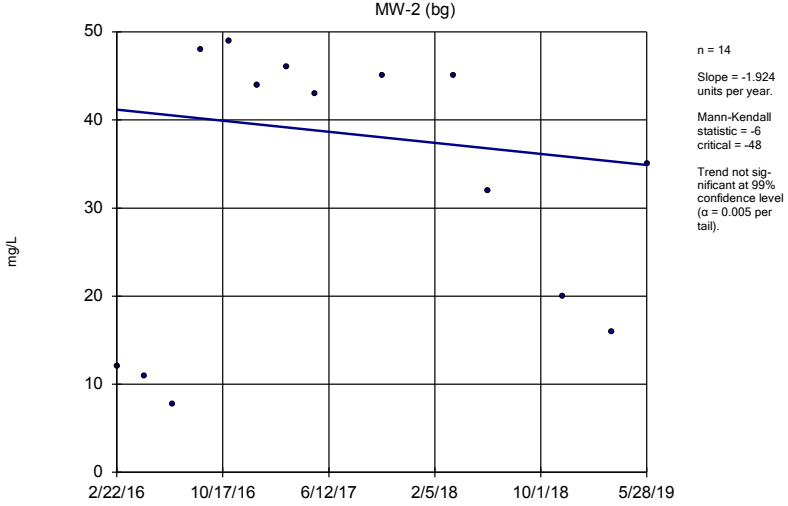
Mann-Kendall statistic = 30
critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sen's Slope Estimator

MW-2 (bg)



n = 14

Slope = -1.924 units per year.

Mann-Kendall statistic = -6
critical = -48

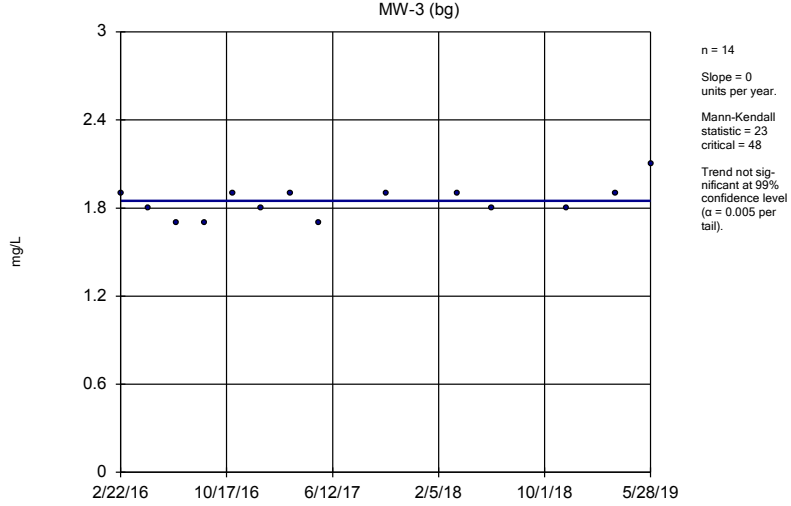
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

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Sen's Slope Estimator

MW-3 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 23
critical = 48

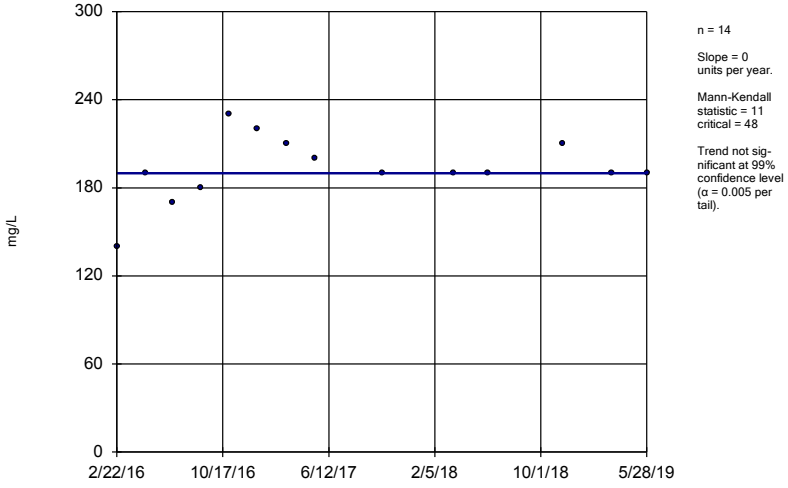
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-12 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 11
critical = 48

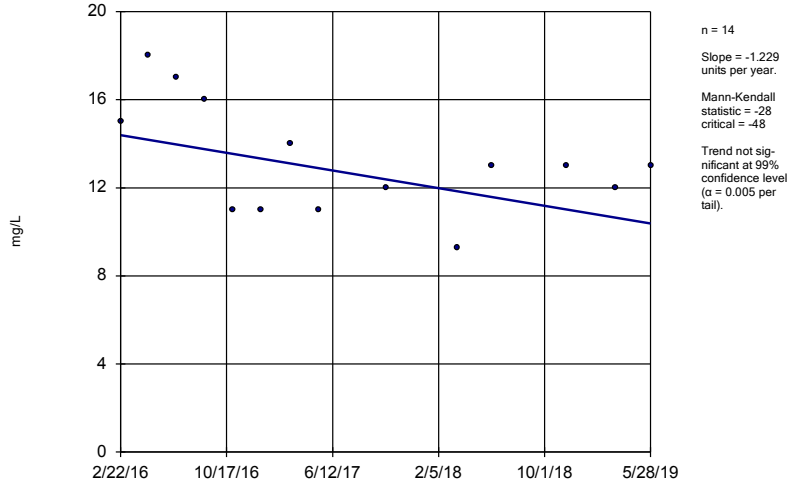
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-2 (bg)



n = 14

Slope = -1.229 units per year.

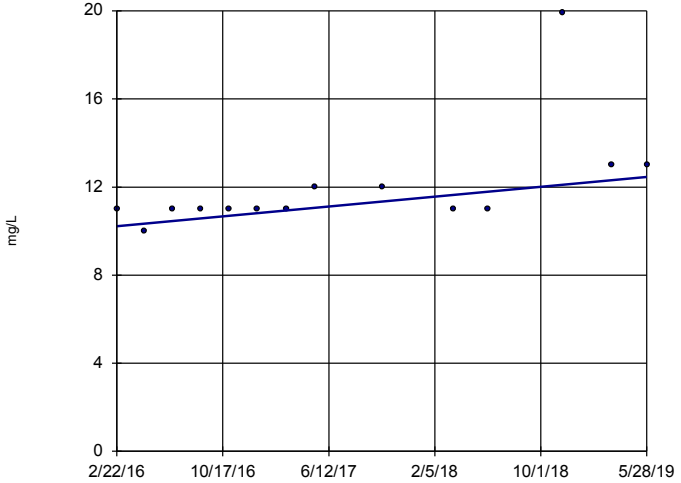
Mann-Kendall statistic = -28
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sen's Slope Estimator

MW-3 (bg)



n = 14

Slope = 0.6854 units per year.

Mann-Kendall statistic = 47 critical = 48

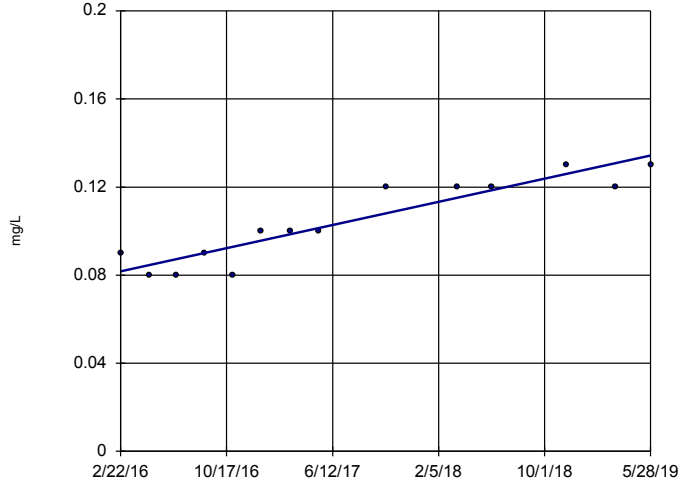
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 10/15/2019 9:07 AM View: Interwell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sen's Slope Estimator

MW-12 (bg)



n = 14

Slope = 0.01611 units per year.

Mann-Kendall statistic = 67 critical = 48

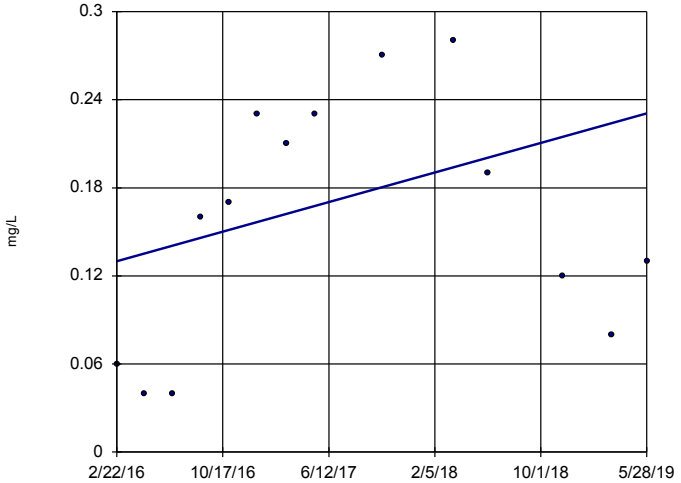
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Fluoride Analysis Run 10/15/2019 9:07 AM View: Interwell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sen's Slope Estimator

MW-2 (bg)



n = 14

Slope = 0.03085 units per year.

Mann-Kendall statistic = 23 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

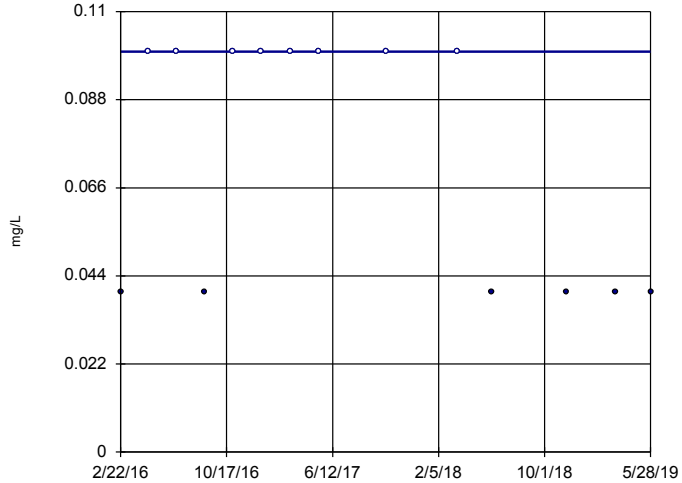
Constituent: Fluoride Analysis Run 10/15/2019 9:07 AM View: Interwell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = -20 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

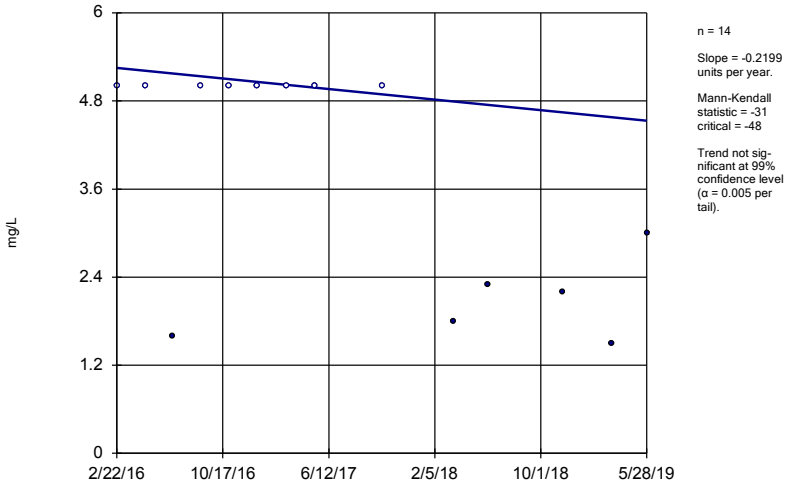
Constituent: Fluoride Analysis Run 10/15/2019 9:07 AM View: Interwell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12 (bg)



n = 14

Slope = -0.2199 units per year.

Mann-Kendall statistic = -31
critical = -48

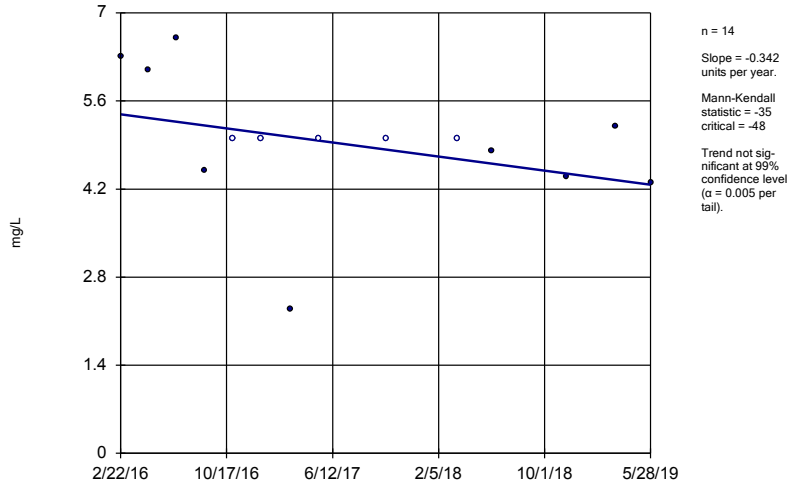
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2 (bg)



n = 14

Slope = -0.342 units per year.

Mann-Kendall statistic = -35
critical = -48

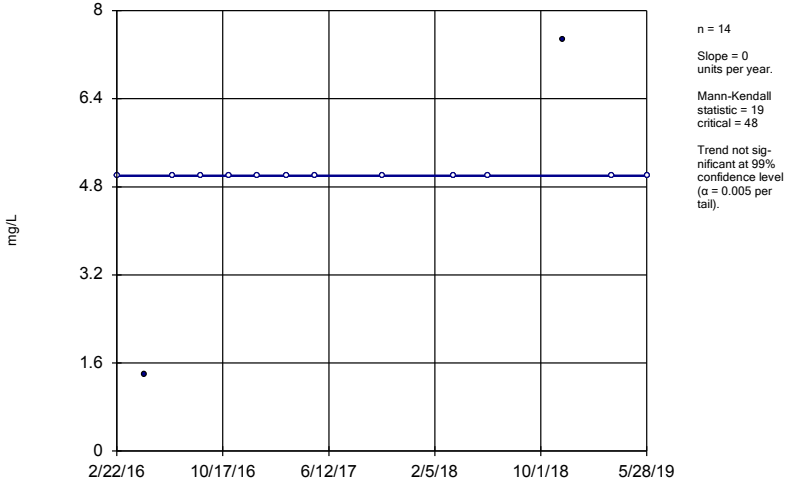
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 19
critical = 48

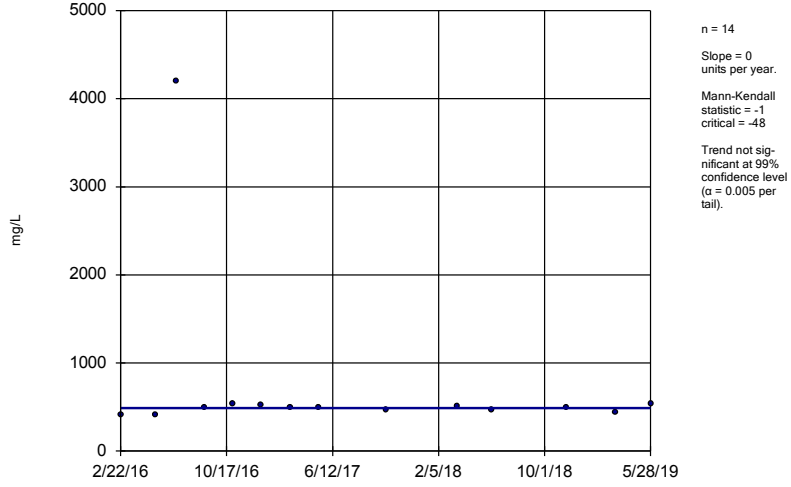
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-12 (bg)



n = 14

Slope = 0 units per year.

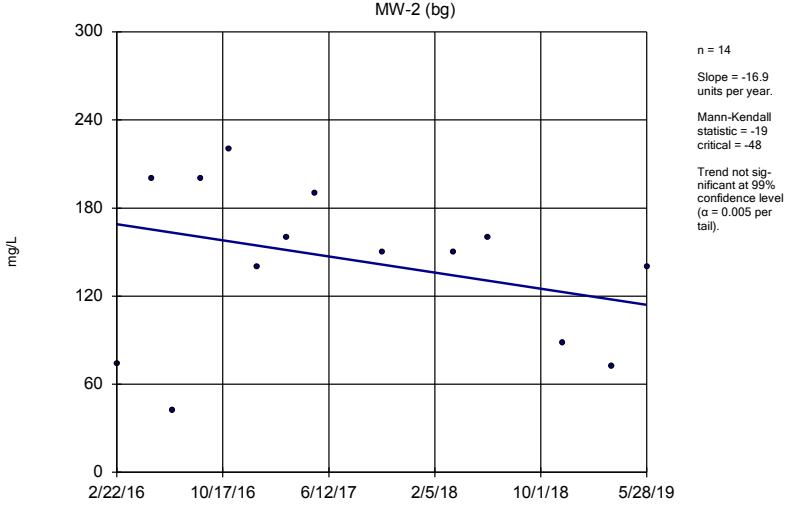
Mann-Kendall statistic = -1
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sen's Slope Estimator

MW-2 (bg)



n = 14

Slope = -16.9 units per year.

Mann-Kendall statistic = -19
critical = -48

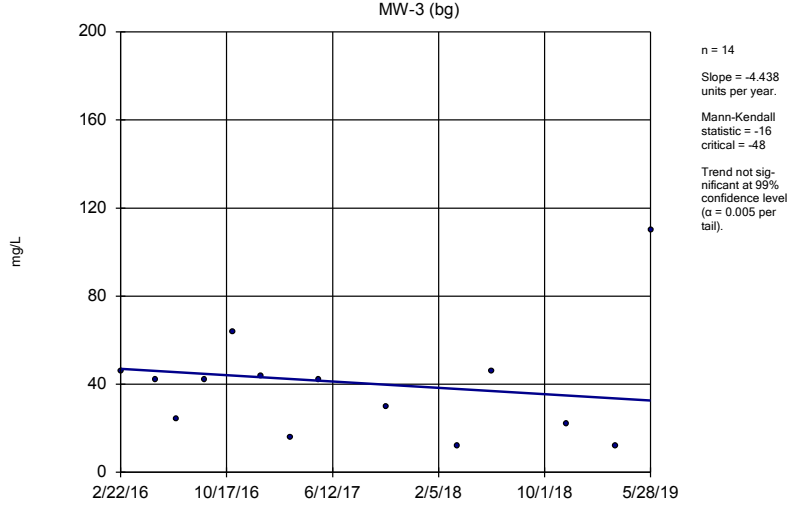
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-3 (bg)



n = 14

Slope = -4.438 units per year.

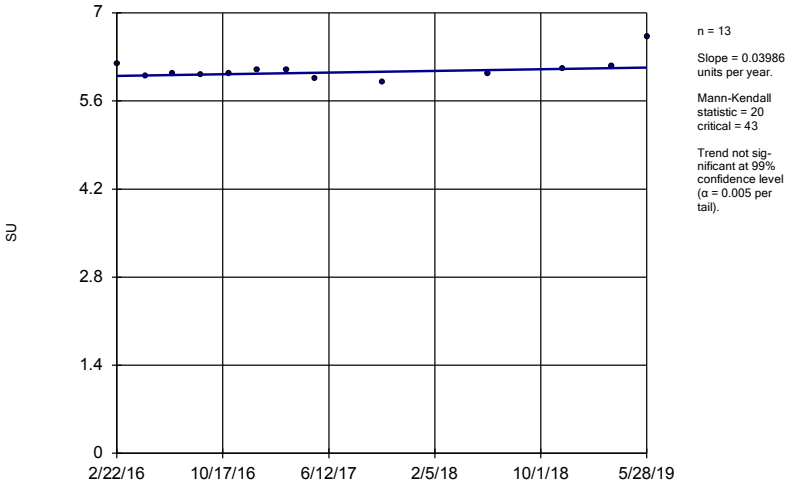
Mann-Kendall statistic = -16
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/15/2019 9:07 AM View: Interwell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sen's Slope Estimator

MW-12 (bg)



n = 13

Slope = 0.03986 units per year.

Mann-Kendall statistic = 20
critical = 43

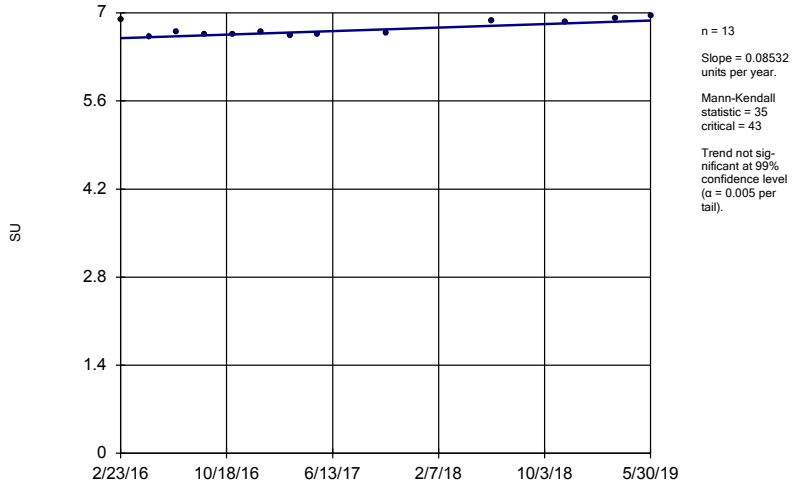
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 10/15/2019 8:46 AM View: Trend Tests
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-14



n = 13

Slope = 0.08532 units per year.

Mann-Kendall statistic = 35
critical = 43

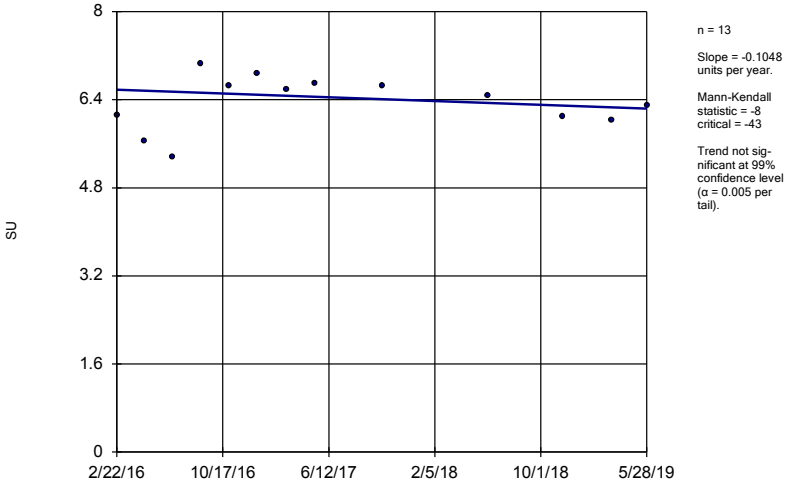
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 10/15/2019 8:46 AM View: Trend Tests
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-2 (bg)



n = 13

Slope = -0.1048 units per year.

Mann-Kendall statistic = -8
critical = -43

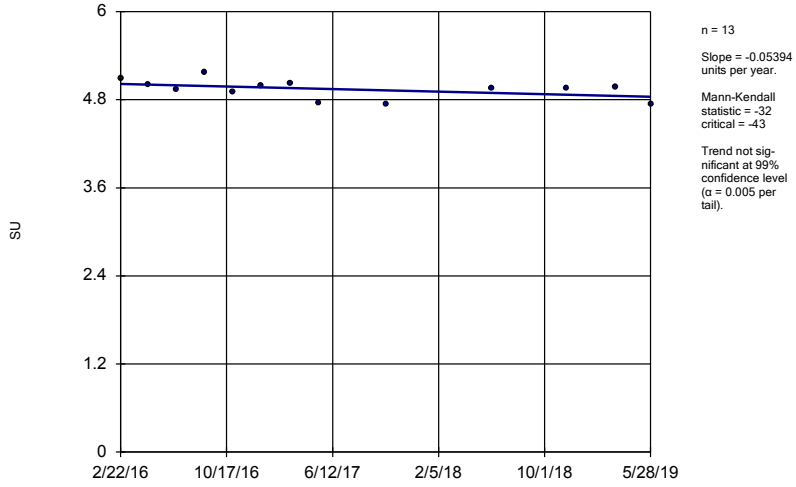
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 10/15/2019 8:46 AM View: Trend Tests
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-3 (bg)



n = 13

Slope = -0.05394 units per year.

Mann-Kendall statistic = -32
critical = -43

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 10/15/2019 8:46 AM View: Trend Tests
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Confidence Intervals

Confidence Intervals - Significant Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Arsenic (mg/L)	**MW-11**	**0.02802**	**0.01752**	**0.01**	**Yes**	**13**	**0.02277**	**0.007061**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**25.46**	**19.52**	**5**	**Yes**	**13**	**22.49**	**3.993**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**34.1**	**25.58**	**5**	**Yes**	**13**	**29.84**	**5.726**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**16.65**	**11.36**	**5**	**Yes**	**13**	**14.01**	**3.555**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.198**	**5.591**	**5**	**Yes**	**13**	**7.395**	**2.425**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**33.19**	**24.07**	**5**	**Yes**	**13**	**28.63**	**6.128**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**49.7**	**20.7**	**5**	**Yes**	**13**	**30.28**	**11.52**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**42.02**	**33.86**	**5**	**Yes**	**13**	**37.94**	**5.491**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**27.56**	**15.03**	**5**	**Yes**	**13**	**21.29**	**8.425**	**0**	**None**	**No**	**0.01**	**Param.**
Lithium (mg/L)	**MW-13**	**0.26**	**0.17**	**0.04**	**Yes**	**13**	**0.2046**	**0.03573**	**0**	**None**	**No**	**0.01**	**NP (normality)**

Confidence Intervals - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Antimony (mg/L)	MW-10	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-11	0.0025	0.0015	0.006	No	10	0.00212	0.0005051	60	None	No	0.011	NP (normality)
Antimony (mg/L)	MW-12 (bg)	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-13	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-14	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-2 (bg)	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-3 (bg)	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-6	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-7	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-8	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Antimony (mg/L)	MW-9	0.0025	0.0025	0.006	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-10	0.003274	0.002065	0.01	No	13	0.002669	0.0008128	7.692	None	No	0.01	Param.
Arsenic (mg/L)	**MW-11**	**0.02802**	**0.01752**	**0.01**	**Yes**	**13**	**0.02277**	**0.007061**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	MW-12 (bg)	0.0013	0.0013	0.01	No	13	0.0013	0	100	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-13	0.002	0.00051	0.01	No	13	0.001318	0.0008321	15.38	None	No	0.01	NP (Cohens/xfrm)
Arsenic (mg/L)	MW-14	0.004799	0.002847	0.01	No	13	0.003823	0.001312	0	None	No	0.01	Param.
Arsenic (mg/L)	MW-2 (bg)	0.0013	0.0013	0.01	No	13	0.0013	0	100	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-3 (bg)	0.0013	0.00085	0.01	No	13	0.001265	0.0001248	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-6	0.001519	0.0008694	0.01	No	13	0.001098	0.0003323	30.77	Cohen`s	No	0.01	Param.
Arsenic (mg/L)	MW-7	0.001845	0.001036	0.01	No	13	0.00153	0.0004508	23.08	Cohen`s	No	0.01	Param.
Arsenic (mg/L)	MW-8	0.001608	0.001147	0.01	No	13	0.001428	0.0002573	23.08	Cohen`s	No	0.01	Param.
Arsenic (mg/L)	MW-9	0.003511	0.00215	0.01	No	13	0.002831	0.000915	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-10	0.1184	0.1013	2	No	13	0.1098	0.01151	0	None	No	0.01	Param.
Barium (mg/L)	MW-11	0.1398	0.087	2	No	13	0.1134	0.03554	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-12 (bg)	0.017	0.012	2	No	13	0.01573	0.007032	7.692	None	No	0.01	NP (normality)
Barium (mg/L)	MW-13	0.1373	0.09255	2	No	13	0.1149	0.03008	0	None	No	0.01	Param.
Barium (mg/L)	MW-14	0.05885	0.04923	2	No	13	0.05404	0.006469	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-2 (bg)	0.02843	0.01657	2	No	13	0.0225	0.007974	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-3 (bg)	0.022	0.016	2	No	13	0.01996	0.005882	7.692	None	No	0.01	NP (normality)
Barium (mg/L)	MW-6	0.07231	0.05746	2	No	13	0.06488	0.009979	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-7	0.15	0.055	2	No	13	0.08112	0.04028	7.692	None	No	0.01	NP (normality)
Barium (mg/L)	MW-8	0.07188	0.05604	2	No	13	0.06396	0.01065	7.692	None	No	0.01	Param.
Barium (mg/L)	MW-9	0.1029	0.07361	2	No	13	0.08827	0.01971	7.692	None	No	0.01	Param.
Beryllium (mg/L)	MW-10	0.0025	0.00037	0.004	No	12	0.0008	0.000799	16.67	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-11	0.0025	0.00092	0.004	No	12	0.001892	0.0007612	50	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-13	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-14	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-2 (bg)	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-3 (bg)	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-6	0.00189	0.0009912	0.004	No	12	0.001441	0.000573	8.333	None	No	0.01	Param.
Beryllium (mg/L)	MW-7	0.0025	0.0025	0.004	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-8	0.0016	0.0011	0.004	No	12	0.001433	0.0003651	8.333	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-9	0.0025	0.00043	0.004	No	12	0.001734	0.0009618	58.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	MW-10	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-11	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-12 (bg)	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-13	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-14	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-2 (bg)	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-3 (bg)	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-6	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-7	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-8	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-9	0.0025	0.0025	0.005	No	10	0.0025	0	100	None	No	0.011	NP (NDs)

Confidence Intervals - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Chromium (mg/L)	MW-10	0.003	0.0015	0.1	No	13	0.002462	0.0003203	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-11	0.0048	0.0025	0.1	No	12	0.003833	0.001707	16.67	None	No	0.01	NP (Cohens/xfrm)
Chromium (mg/L)	MW-12 (bg)	0.012	0.0025	0.1	No	13	0.003231	0.002635	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-13	0.0025	0.0024	0.1	No	13	0.002492	0.00002773	92.31	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-14	0.0025	0.0017	0.1	No	13	0.002338	0.0004073	84.62	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-2 (bg)	0.0033	0.0018	0.1	No	13	0.002662	0.001324	23.08	None	No	0.01	NP (Cohens/xfrm)
Chromium (mg/L)	MW-3 (bg)	0.0049	0.0021	0.1	No	13	0.003092	0.001487	23.08	None	No	0.01	NP (normality)
Chromium (mg/L)	MW-6	0.0025	0.0025	0.1	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-7	0.0025	0.0012	0.1	No	13	0.002108	0.000741	46.15	None	No	0.01	NP (normality)
Chromium (mg/L)	MW-8	0.0025	0.0025	0.1	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Chromium (mg/L)	MW-9	0.0025	0.0025	0.1	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-10	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-11	0.0025	0.00046	0.006	No	12	0.00233	0.0005889	91.67	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-12 (bg)	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-13	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-14	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-2 (bg)	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-3 (bg)	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-6	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-7	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-8	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-9	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	**MW-10**	**25.46**	**19.52**	**5**	**Yes**	**13**	**22.49**	**3.993**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-11**	**34.1**	**25.58**	**5**	**Yes**	**13**	**29.84**	**5.726**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-12 (bg)	2.69	1.81	5	No	13	2.296	1.003	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	**MW-13**	**16.65**	**11.36**	**5**	**Yes**	**13**	**14.01**	**3.555**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-14**	**9.198**	**5.591**	**5**	**Yes**	**13**	**7.395**	**2.425**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-2 (bg)	2.66	1.151	5	No	13	1.958	1.075	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-3 (bg)	1.832	1.297	5	No	13	1.565	0.3594	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-6**	**33.19**	**24.07**	**5**	**Yes**	**13**	**28.63**	**6.128**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-7**	**49.7**	**20.7**	**5**	**Yes**	**13**	**30.28**	**11.52**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-8**	**42.02**	**33.86**	**5**	**Yes**	**13**	**37.94**	**5.491**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-9**	**27.56**	**15.03**	**5**	**Yes**	**13**	**21.29**	**8.425**	**0**	**None**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-10	0.1	0.04	4	No	14	0.07643	0.02872	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-11	0.1	0.05	4	No	14	0.08857	0.02282	78.57	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-12 (bg)	0.1175	0.09104	4	No	14	0.1043	0.01869	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-13	0.1	0.04	4	No	13	0.05615	0.02293	7.692	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-14	0.08191	0.04781	4	No	14	0.06486	0.02407	7.143	None	No	0.01	Param.
Fluoride (mg/L)	MW-2 (bg)	0.2159	0.09977	4	No	14	0.1579	0.08201	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-3 (bg)	0.1	0.04	4	No	14	0.07429	0.03081	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-6	0.1	0.04	4	No	14	0.06036	0.02422	21.43	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-7	0.1	0.04	4	No	14	0.08336	0.02736	71.43	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-8	0.1	0.1	4	No	14	0.1	0	100	None	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-9	0.1	0.04	4	No	14	0.06121	0.02727	28.57	None	No	0.01	NP (normality)
Lead (mg/L)	MW-10	0.0013	0.0013	0.015	No	10	0.0013	0	100	None	No	0.011	NP (NDs)
Lead (mg/L)	MW-11	0.0013	0.0013	0.015	No	11	0.0013	1.1e-12	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-12 (bg)	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-13	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-14	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-2 (bg)	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-3 (bg)	0.0013	0.00039	0.015	No	11	0.001135	0.0003681	81.82	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-6	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-7	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-8	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)
Lead (mg/L)	MW-9	0.0013	0.0013	0.015	No	11	0.0013	0	100	None	No	0.006	NP (NDs)

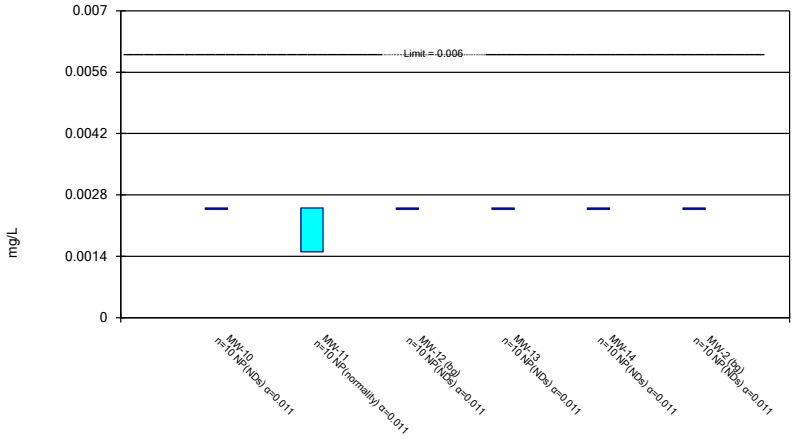
Confidence Intervals - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/15/2019, 9:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Trans...	Alpha	Method
Lithium (mg/L)	MW-10	0.006237	0.004749	0.04	No	13	0.005592	0.0008846	15.38	Cohen`s	No	0.01	Param.
Lithium (mg/L)	MW-11	0.011	0.0038	0.04	No	13	0.0057	0.002731	53.85	None	No	0.01	NP (normality)
Lithium (mg/L)	MW-12 (bg)	0.01518	0.008723	0.04	No	13	0.0121	0.00469	7.692	None	sqrt(x)	0.01	Param.
Lithium (mg/L)	**MW-13**	**0.26**	**0.17**	**0.04**	**Yes**	**13**	**0.2046**	**0.03573**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Lithium (mg/L)	MW-14	0.005	0.002	0.04	No	13	0.0043	0.001356	76.92	None	No	0.01	NP (NDs)
Lithium (mg/L)	MW-2 (bg)	0.00769	0.003433	0.04	No	13	0.005562	0.002863	30.77	None	No	0.01	Param.
Lithium (mg/L)	MW-3 (bg)	0.01351	0.009659	0.04	No	13	0.01158	0.00259	7.692	None	No	0.01	Param.
Lithium (mg/L)	MW-6	0.02097	0.01068	0.04	No	13	0.01582	0.006918	7.692	None	No	0.01	Param.
Lithium (mg/L)	MW-7	0.005	0.002	0.04	No	13	0.004062	0.001419	61.54	None	No	0.01	NP (normality)
Lithium (mg/L)	MW-8	0.011	0.0067	0.04	No	13	0.008192	0.002587	15.38	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	MW-9	0.007715	0.002957	0.04	No	13	0.005523	0.003672	7.692	None	sqrt(x)	0.01	Param.
Mercury (mg/L)	MW-10	0.0002	0.0002	0.002	No	10	0.0001889	0.0000351	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-11	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-12 (bg)	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-13	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-14	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-2 (bg)	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-3 (bg)	0.0002	0.0002	0.002	No	10	0.0001871	0.00004079	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-6	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-7	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-8	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Mercury (mg/L)	MW-9	0.0002	0.0002	0.002	No	10	0.0002	0	100	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	MW-10	0.015	0.001	0.1	No	13	0.007244	0.006435	38.46	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-11	0.01488	0.009309	0.1	No	13	0.01209	0.003744	7.692	None	No	0.01	Param.
Molybdenum (mg/L)	MW-12 (bg)	0.015	0.015	0.1	No	13	0.015	0	100	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-13	0.02958	0.01254	0.1	No	13	0.02106	0.01146	7.692	None	No	0.01	Param.
Molybdenum (mg/L)	MW-14	0.01746	0.0139	0.1	No	13	0.01556	0.00272	0	None	x^2	0.01	Param.
Molybdenum (mg/L)	MW-2 (bg)	0.015	0.0011	0.1	No	13	0.01285	0.005258	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-3 (bg)	0.015	0.015	0.1	No	13	0.015	0	100	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-6	0.015	0.0011	0.1	No	13	0.01393	0.003855	92.31	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-7	0.015	0.0042	0.1	No	13	0.009338	0.004829	38.46	None	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-8	0.015	0.015	0.1	No	13	0.015	0	100	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-9	0.015	0.0023	0.1	No	13	0.01033	0.006232	61.54	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-10	0.0013	0.00041	0.05	No	12	0.001138	0.0003791	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-11	0.0013	0.00051	0.05	No	12	0.0009925	0.0003829	58.33	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-12 (bg)	0.0013	0.0013	0.05	No	12	0.0013	0	100	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-13	0.0013	0.00044	0.05	No	12	0.001113	0.000364	75	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-14	0.0013	0.00041	0.05	No	12	0.001138	0.0003812	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-2 (bg)	0.0013	0.00038	0.05	No	12	0.001223	0.0002656	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-3 (bg)	0.0013	0.00069	0.05	No	12	0.001166	0.0003242	83.33	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-6	0.0013	0.00027	0.05	No	12	0.001041	0.0004505	66.67	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-7	0.0013	0.00028	0.05	No	12	0.00099	0.0004661	66.67	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-8	0.0013	0.00032	0.05	No	12	0.001053	0.0004011	66.67	None	No	0.01	NP (normality)
Selenium (mg/L)	MW-9	0.0013	0.00035	0.05	No	12	0.00114	0.0003737	83.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	MW-10	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-11	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-12 (bg)	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-13	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-14	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-2 (bg)	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-3 (bg)	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-6	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-7	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-8	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)
Thallium (mg/L)	MW-9	0.0005	0.0005	0.002	No	10	0.0005	0	100	None	No	0.011	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



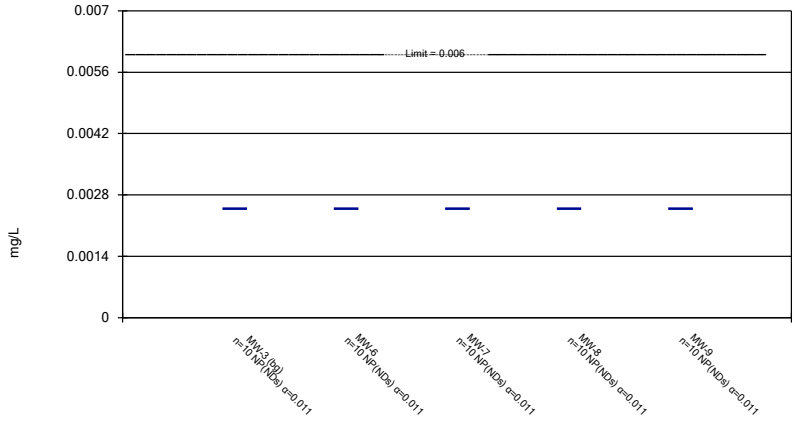
Constituent: Antimony Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



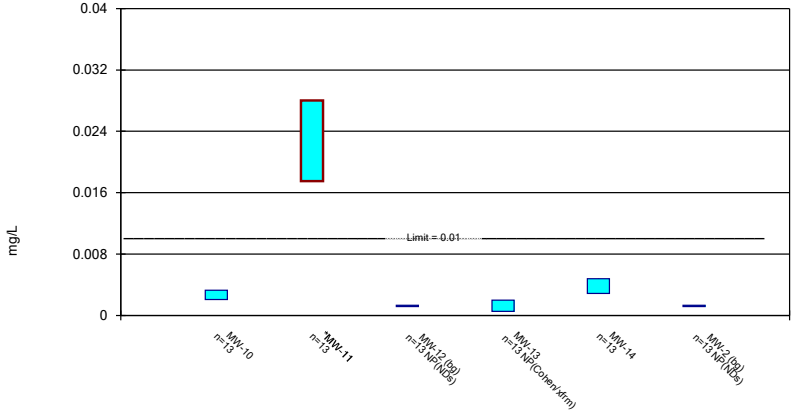
Constituent: Antimony Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



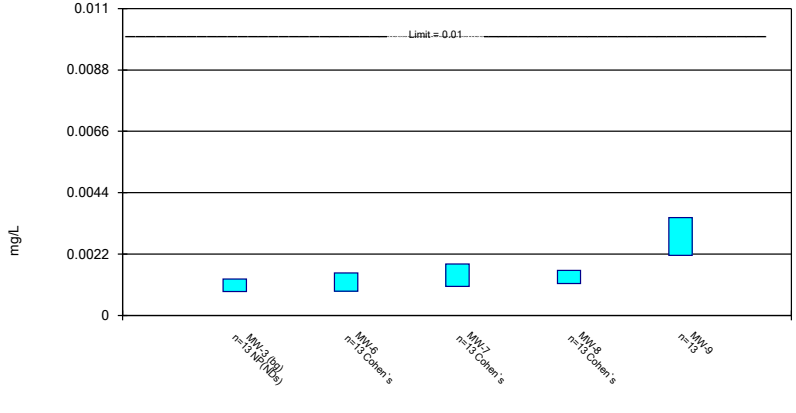
Constituent: Arsenic Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

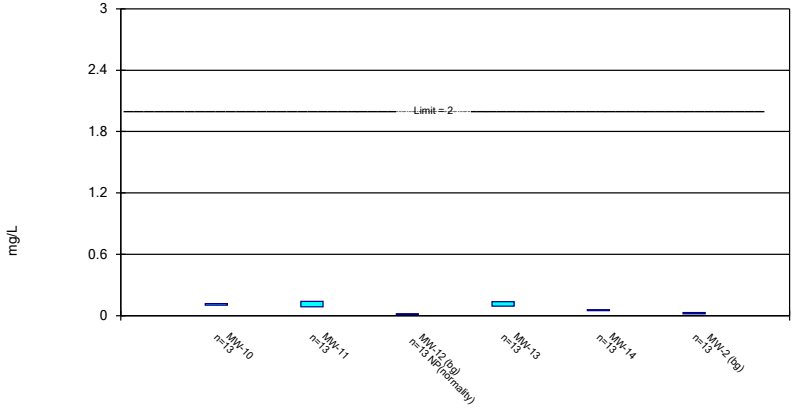


Constituent: Arsenic Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

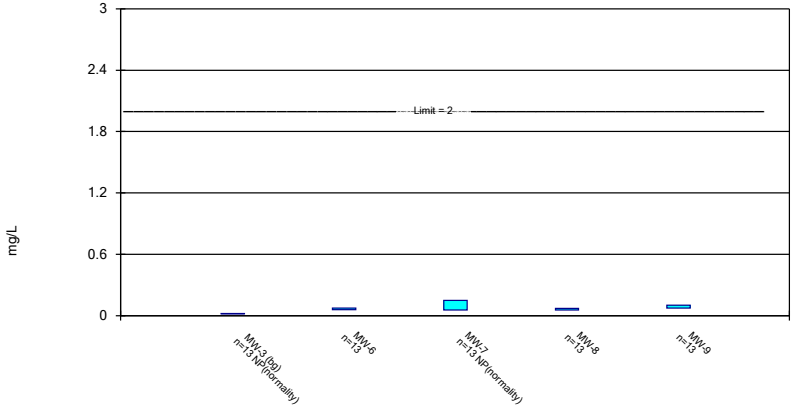


Constituent: Barium Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

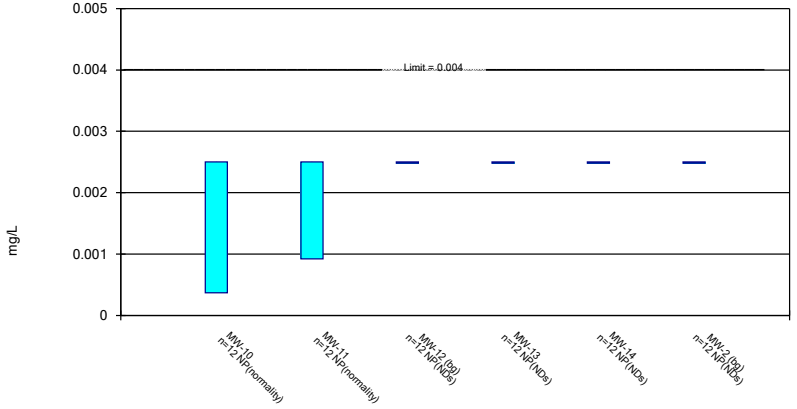


Constituent: Barium Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

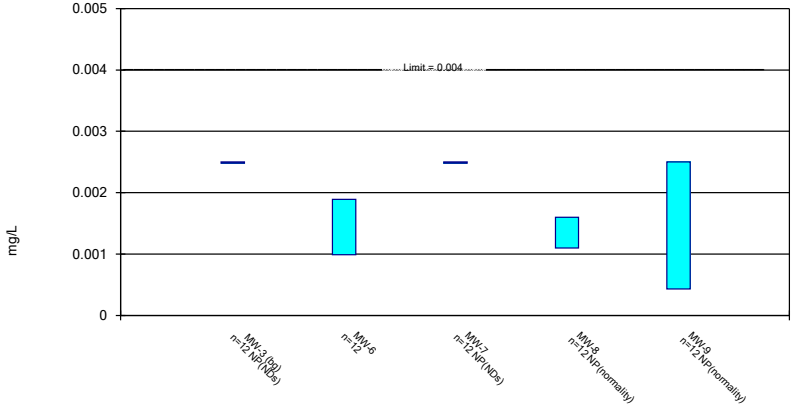


Constituent: Beryllium Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

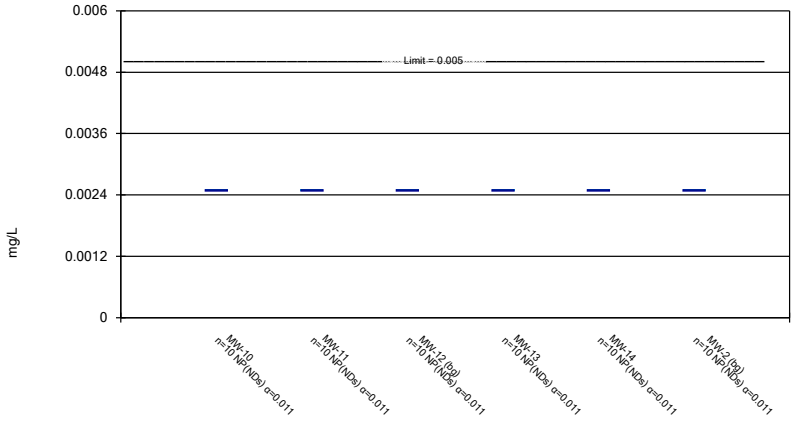
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



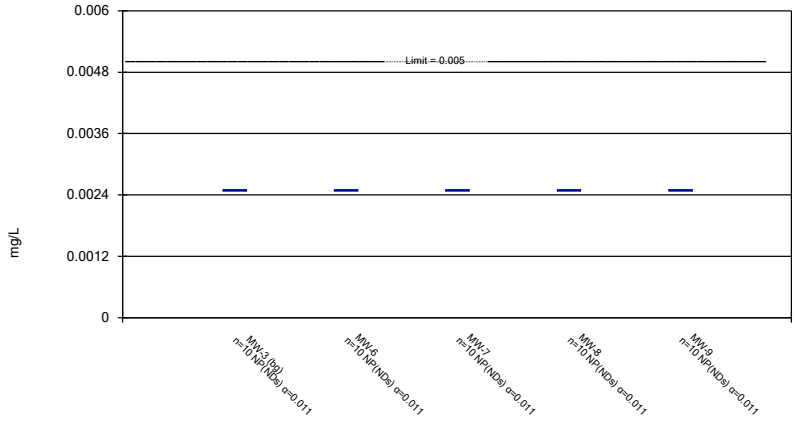
Constituent: Cadmium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



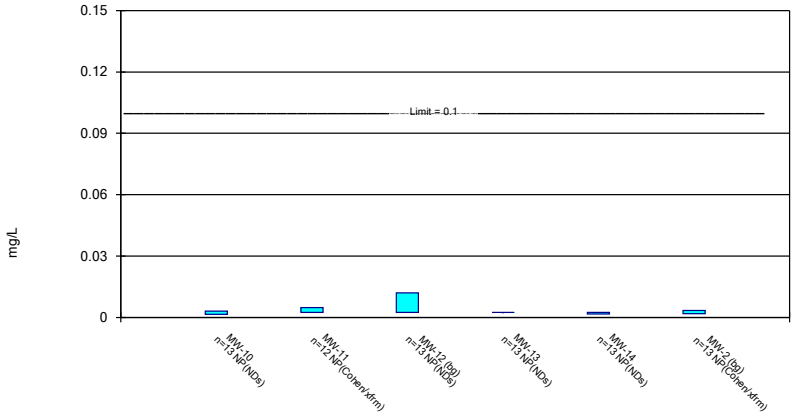
Constituent: Cadmium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



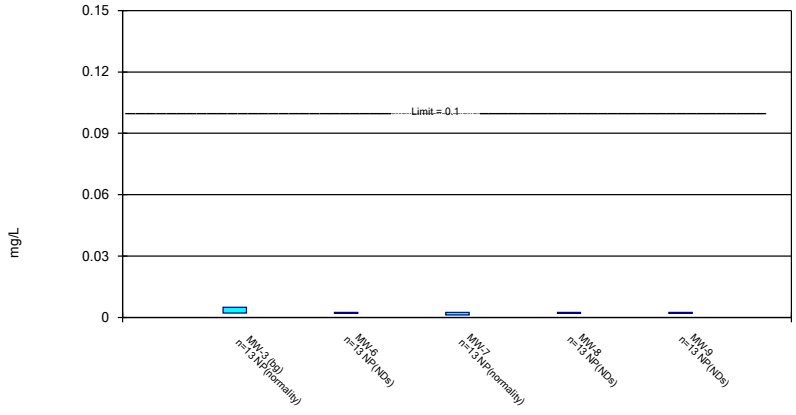
Constituent: Chromium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

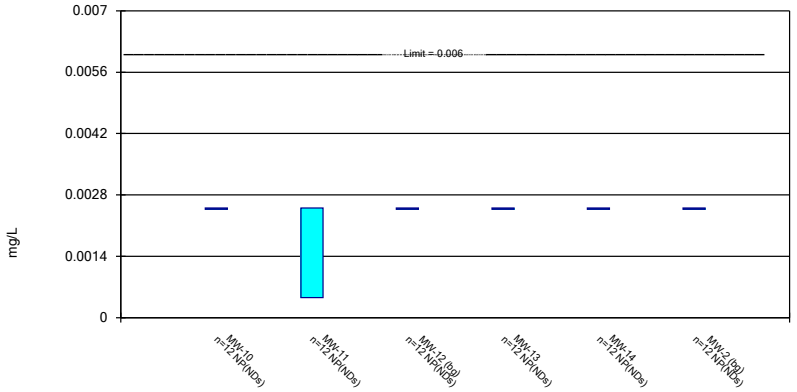


Constituent: Chromium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

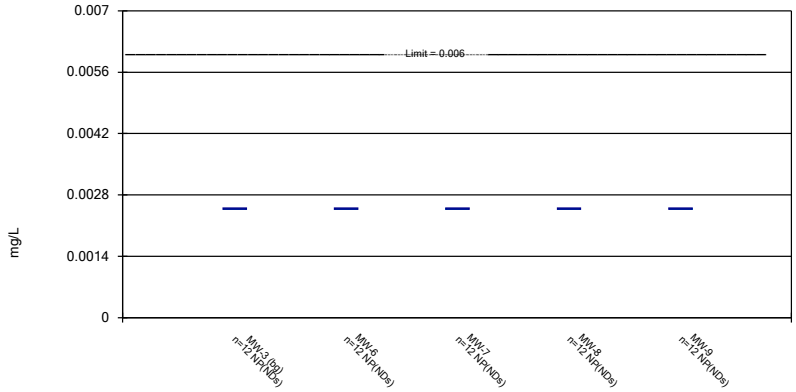


Constituent: Cobalt Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

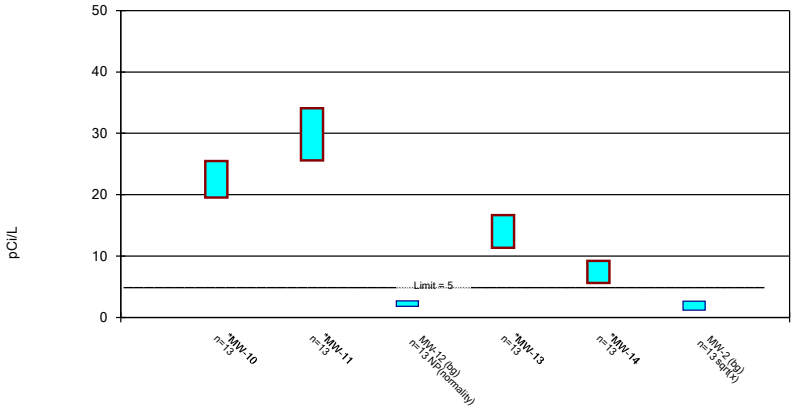


Constituent: Cobalt Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

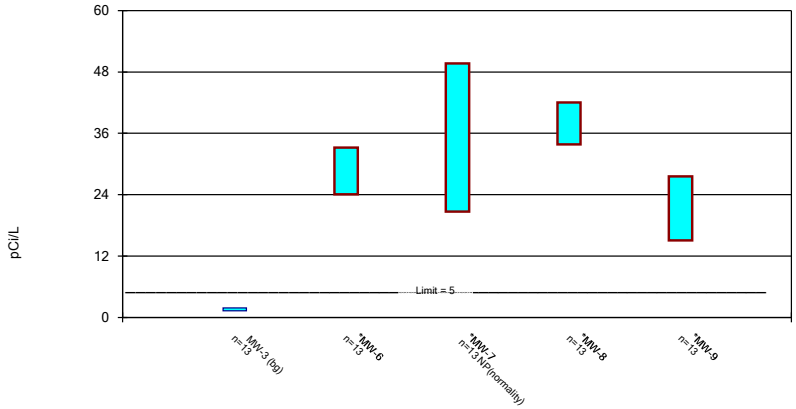


Constituent: Combined Radium 226 + 228 Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

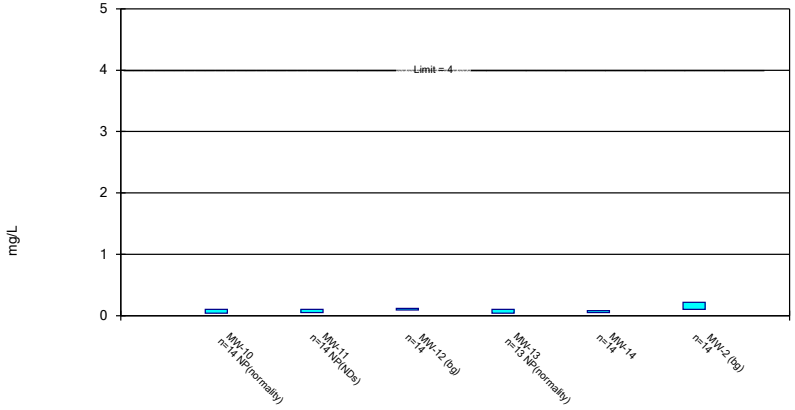
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/15/2019 9:43 AM View: CIs
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

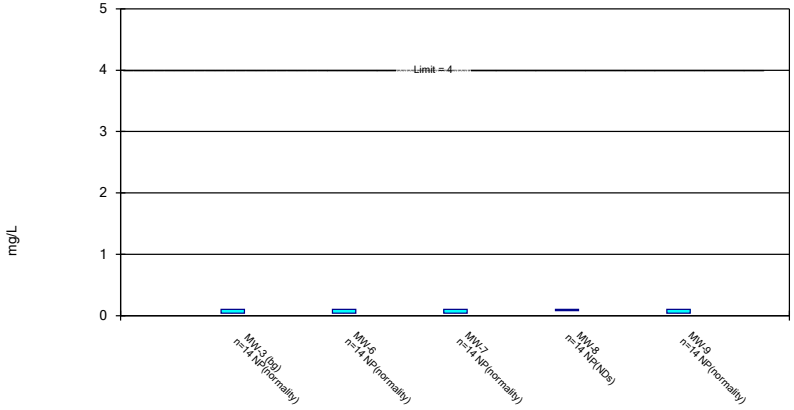


Constituent: Fluoride Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

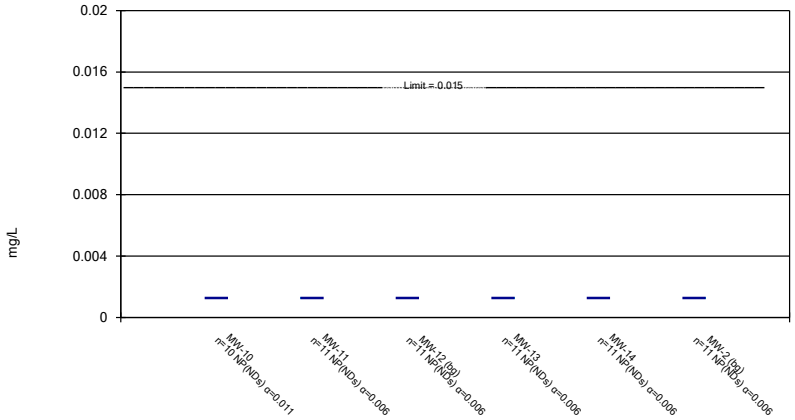


Constituent: Fluoride Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

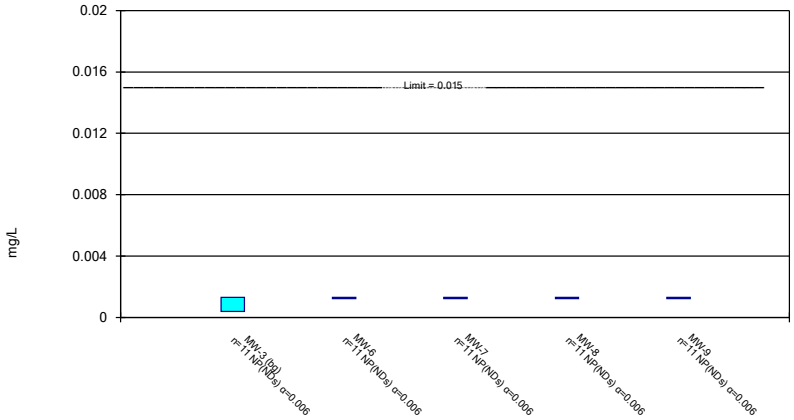


Constituent: Lead Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

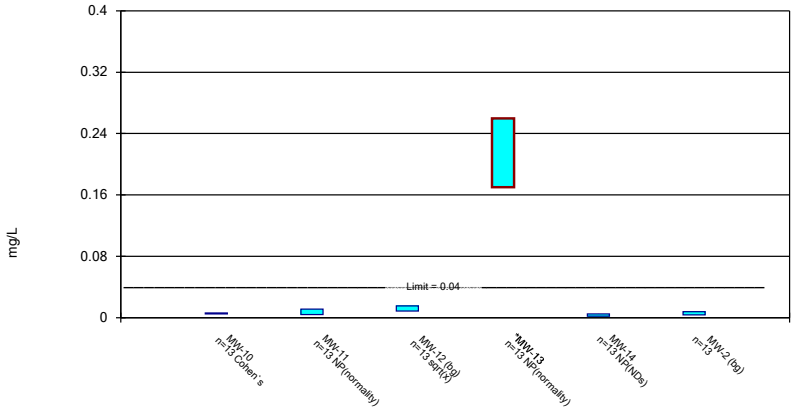


Constituent: Lead Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



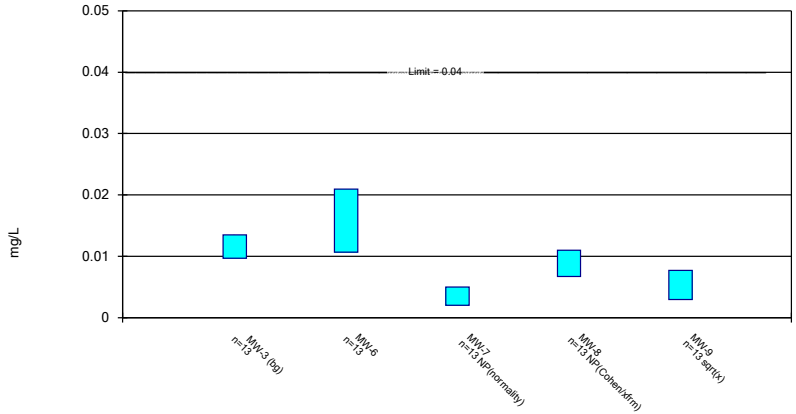
Constituent: Lithium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



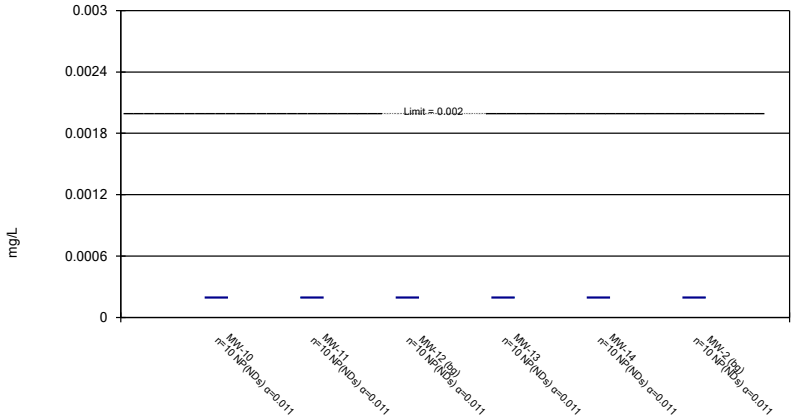
Constituent: Lithium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



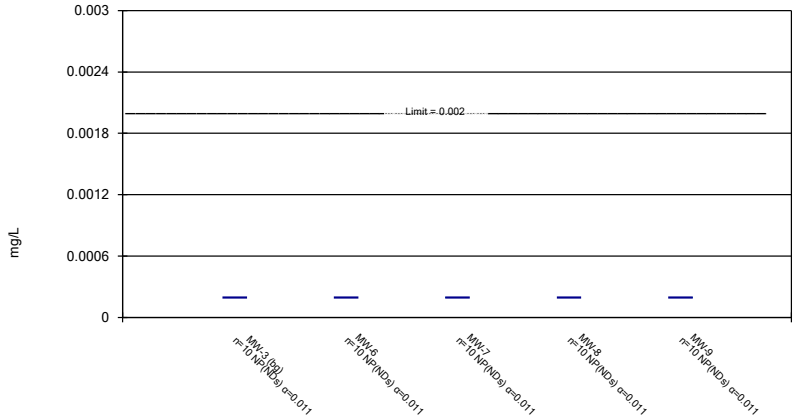
Constituent: Mercury Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

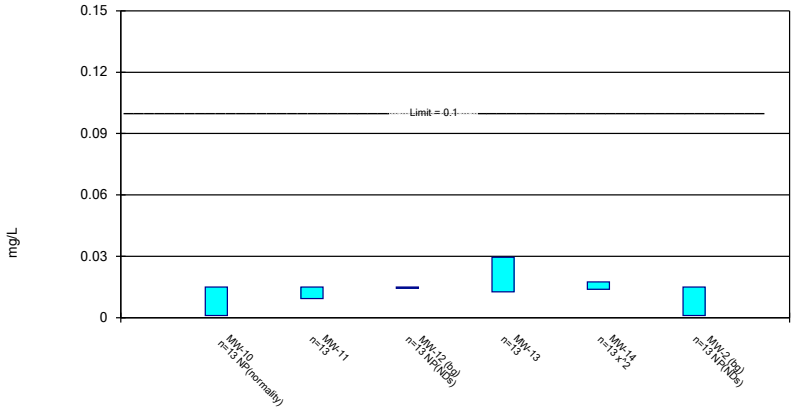


Constituent: Mercury Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

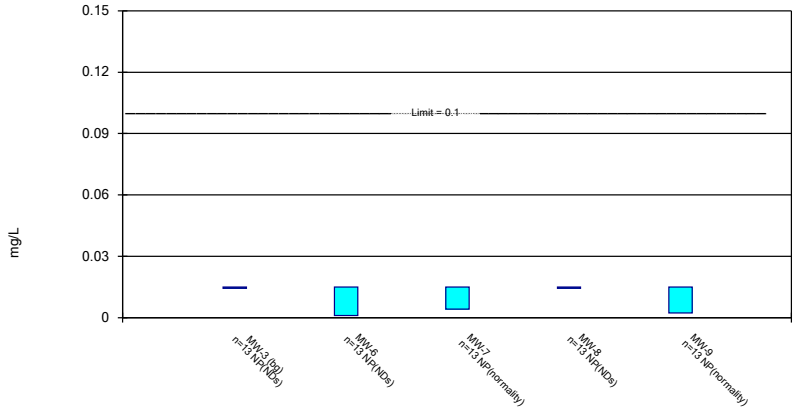


Constituent: Molybdenum Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

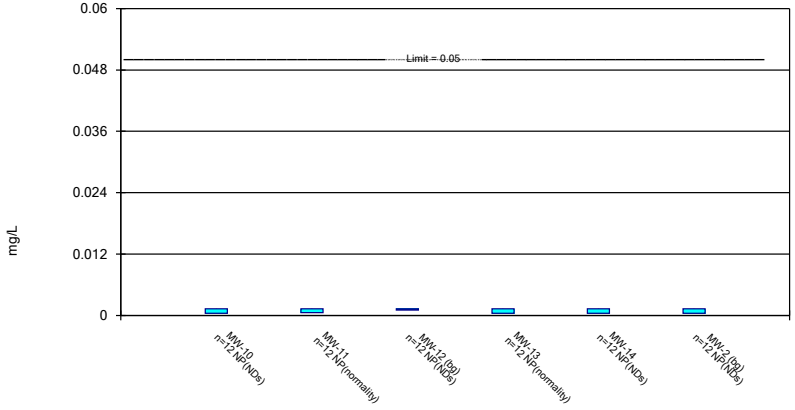


Constituent: Molybdenum Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

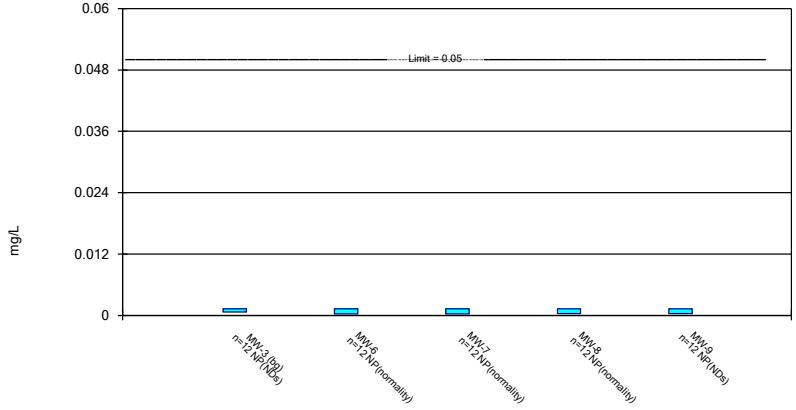


Constituent: Selenium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

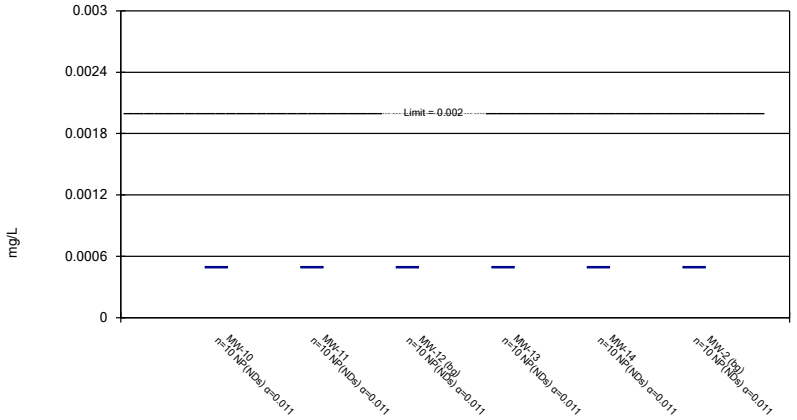


Constituent: Selenium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



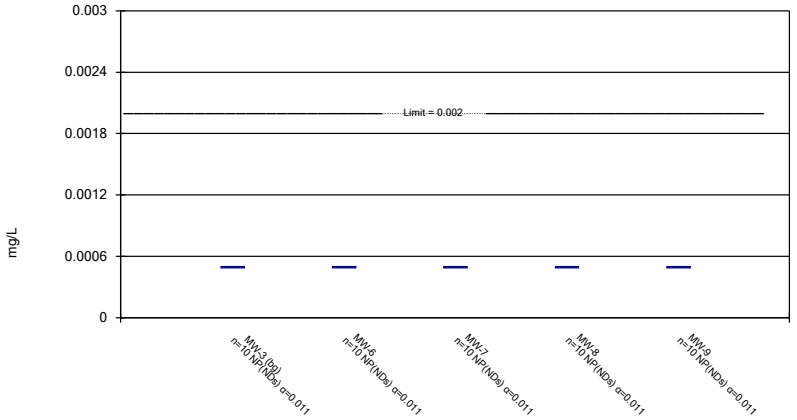
Constituent: Thallium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



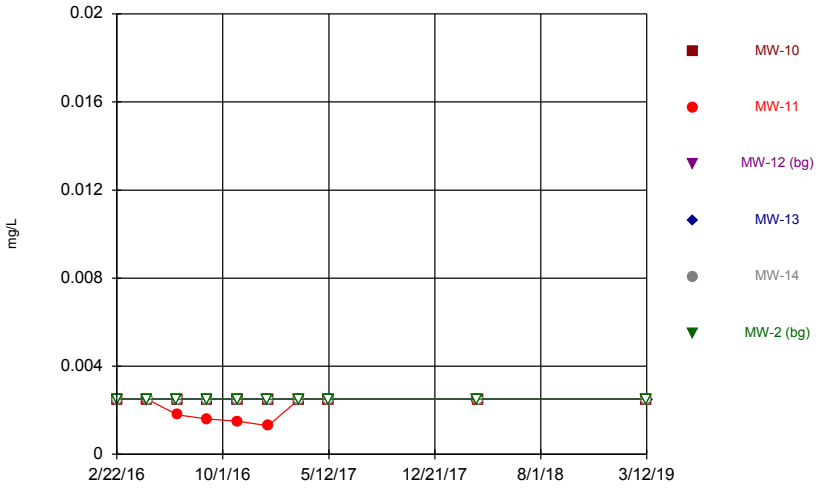
Constituent: Thallium Analysis Run 10/15/2019 9:43 AM View: CIs

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

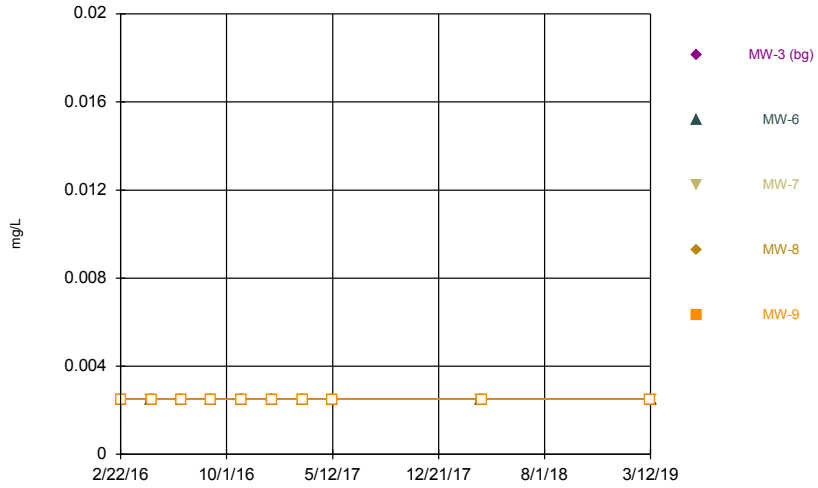
Time Series



Constituent: Antimony Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

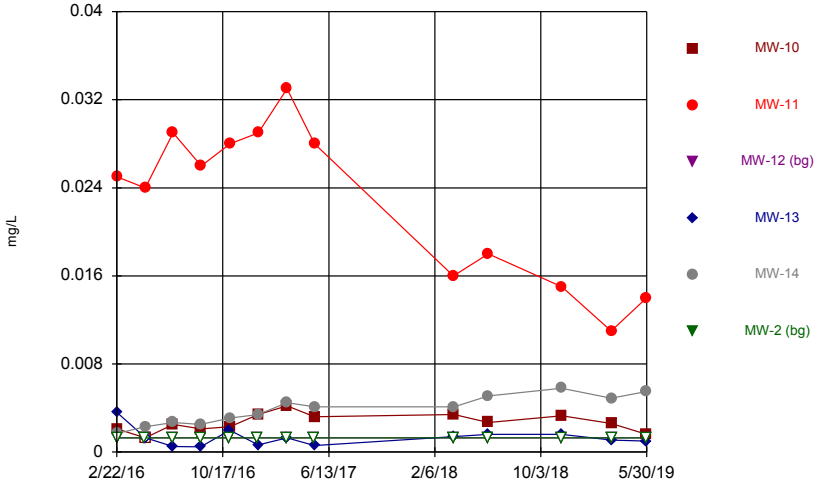
Time Series



Constituent: Antimony Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

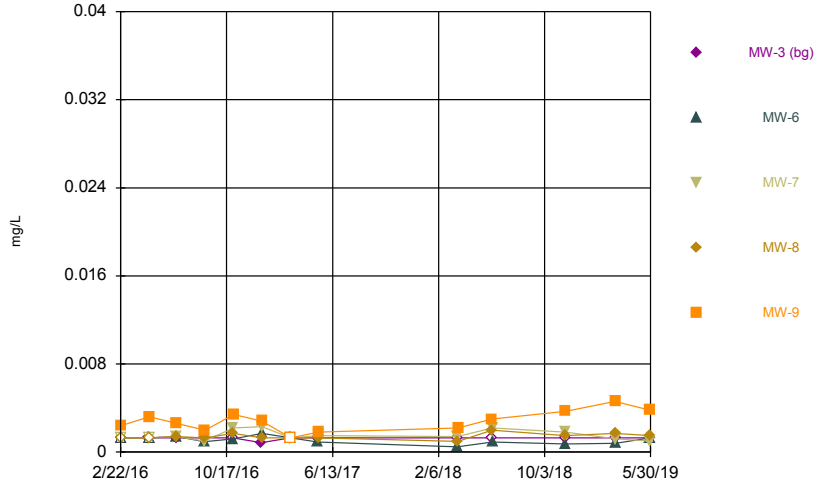
Time Series



Constituent: Arsenic Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0025	<0.0025			<0.0025
2/23/2016	<0.0025			<0.0025	<0.0025	
4/25/2016						<0.0025
4/26/2016	<0.0025	<0.0025	<0.0025			
4/27/2016				<0.0025	<0.0025	
6/27/2016			<0.0025			<0.0025
6/28/2016	<0.0025	0.0018 (J)		<0.0025	<0.0025	
8/29/2016			<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	<0.0025	0.0016 (J)				
11/1/2016			<0.0025			<0.0025
11/2/2016				<0.0025		
11/3/2016	<0.0025	0.0015 (J)			<0.0025	
1/4/2017			<0.0025			<0.0025
1/5/2017	<0.0025	0.0013 (J)		<0.0025	<0.0025	
3/10/2017			<0.0025			<0.0025
3/11/2017	<0.0025	<0.0025 (*)		<0.0025	<0.0025	
5/11/2017			<0.0025			<0.0025
5/12/2017	<0.0025	<0.0025		<0.0025	<0.0025	
3/20/2018			<0.0025			
3/21/2018		<0.0025				<0.0025
3/22/2018	<0.0025			<0.0025	<0.0025	
3/11/2019	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025
3/12/2019				<0.0025		

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0025				
2/23/2016		<0.0025	<0.0025	<0.0025	<0.0025
4/25/2016	<0.0025				
4/26/2016		<0.0025	<0.0025		
4/27/2016				<0.0025	<0.0025
6/27/2016	<0.0025				
6/28/2016		<0.0025	<0.0025	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	
8/30/2016					<0.0025
11/1/2016	<0.0025				
11/2/2016		<0.0025	<0.0025	<0.0025	
11/3/2016					<0.0025
1/4/2017	<0.0025				
1/5/2017		<0.0025	<0.0025	<0.0025	<0.0025
3/10/2017	<0.0025				
3/11/2017		<0.0025	<0.0025	<0.0025	<0.0025
5/11/2017	<0.0025	<0.0025			
5/12/2017			<0.0025	<0.0025	<0.0025
3/20/2018	<0.0025				
3/21/2018		<0.0025	<0.0025		
3/22/2018				<0.0025	
3/23/2018					<0.0025
3/11/2019	<0.0025			<0.0025	<0.0025
3/12/2019		<0.0025	<0.0025		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		0.025	<0.0013			<0.0013
2/23/2016	0.0021 (J)			0.0036 (J)	0.0017 (J)	
4/25/2016						<0.0013
4/26/2016	<0.0013	0.024	<0.0013			
4/27/2016				<0.0013	0.0023 (J)	
6/27/2016			<0.0013			<0.0013
6/28/2016	0.0025	0.029		0.00051 (J)	0.0027	
8/29/2016			<0.0013	0.00047 (J)	0.0025	<0.0013
8/30/2016	0.0021	0.026				
11/1/2016			<0.0013			<0.0013
11/2/2016				0.002		
11/3/2016	0.0023	0.028			0.0031	
1/4/2017			<0.0013			<0.0013
1/5/2017	0.0034	0.029		0.00066 (J)	0.0034	
3/10/2017			<0.0013			<0.0013 (*)
3/11/2017	0.0042	0.033		<0.0013 (*)	0.0045	
5/11/2017			<0.0013			<0.0013
5/12/2017	0.0032	0.028		0.0006 (J)	0.0041	
3/20/2018			<0.0013			
3/21/2018		0.016				<0.0013
3/22/2018	0.0034			0.0014	0.0041	
6/6/2018			<0.0013			<0.0013
6/7/2018	0.0027	0.018		0.0016	0.0051	
11/19/2018			<0.0013	0.0016	0.0058	<0.0013
11/20/2018	0.0033	0.015				
3/11/2019	0.0026	0.011	<0.0013		0.0049	<0.0013
3/12/2019				0.0011 (J)		
5/28/2019			<0.0013			<0.0013
5/29/2019		0.014		0.001 (J)		
5/30/2019	0.0016				0.0055	

Time Series

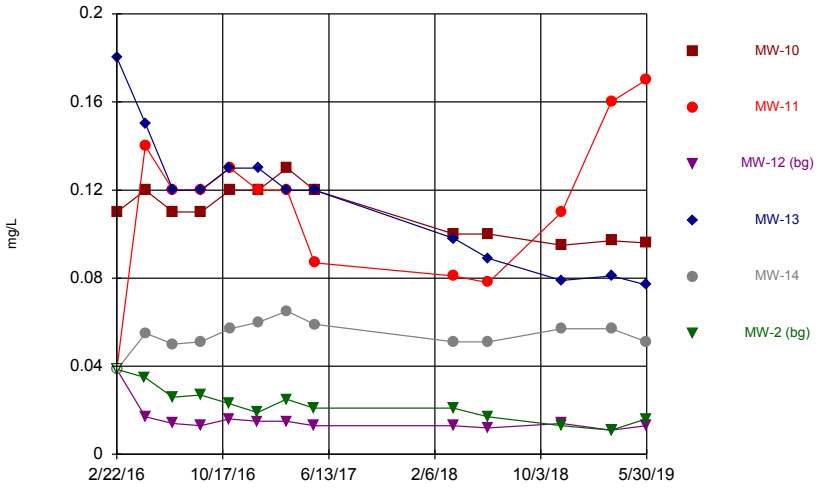
Constituent: Arsenic (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0013				
2/23/2016		<0.0013	<0.0013	<0.0013	0.0024 (J)
4/25/2016	<0.0013				
4/26/2016		<0.0013	<0.0013		
4/27/2016				<0.0013	0.0032 (J)
6/27/2016	<0.0013				
6/28/2016		0.0014	0.0014	0.0014	0.0026
8/29/2016	<0.0013	0.00095 (J)	0.001 (J)	0.0013	
8/30/2016					0.002
11/1/2016	<0.0013				
11/2/2016		0.0012 (J)	0.0022	0.0017	
11/3/2016					0.0034
1/4/2017	0.00085 (J)				
1/5/2017		0.0017	0.0023	0.0013	0.0028
3/10/2017	<0.0013				
3/11/2017		<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	<0.0013 (*)
5/11/2017	<0.0013	0.0009 (J)			
5/12/2017			0.0015	0.0013	0.0018
3/20/2018	<0.0013				
3/21/2018		0.00048 (J)	0.0014		
3/22/2018				0.00097 (J)	
3/23/2018					0.0022
6/6/2018	<0.0013				
6/7/2018				0.002	0.003
6/8/2018		0.0009 (J)	0.0022		
11/19/2018	<0.0013	0.00075 (J)	0.0018	0.0015	
11/20/2018					0.0037
3/11/2019	<0.0013			0.0017	0.0046
3/12/2019		0.00079 (J)	0.0012 (J)		
5/28/2019	<0.0013				
5/29/2019		<0.0013	0.00099 (J)		
5/30/2019				0.0015	0.0038

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

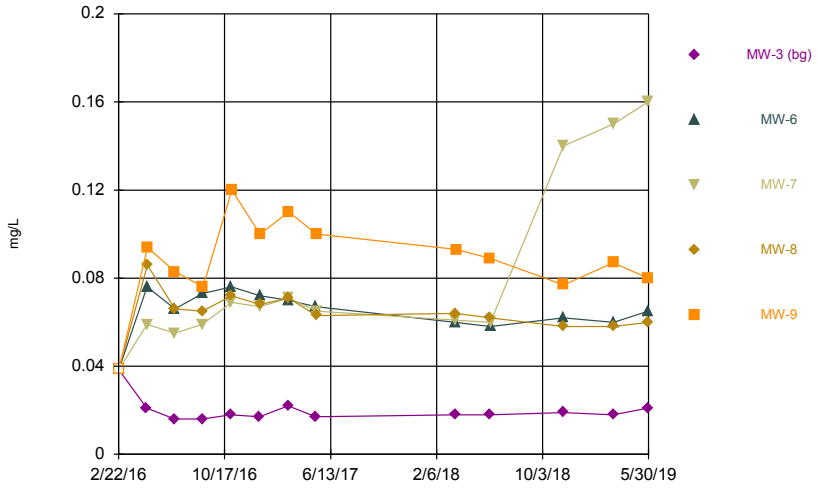
Time Series



Constituent: Barium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

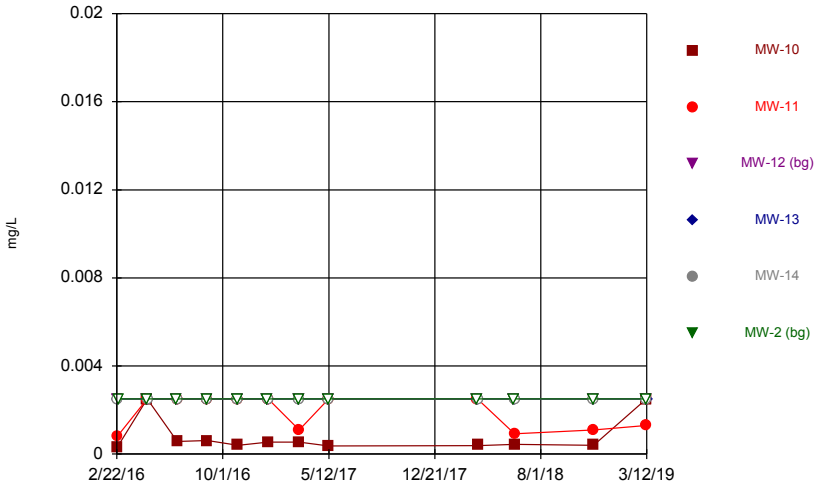
Time Series



Constituent: Barium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

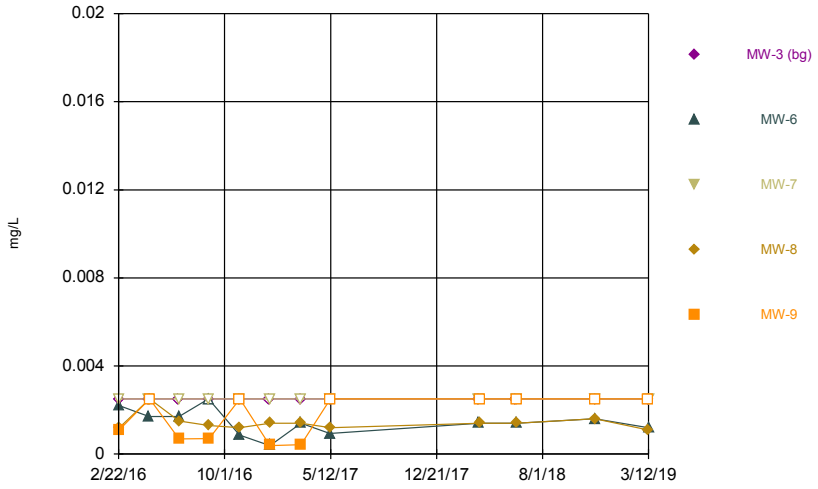
Time Series



Constituent: Beryllium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Barium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.077 (*)	<0.077 (*)			<0.077 (*)
2/23/2016	0.11			0.18	<0.077 (*)	
4/25/2016						0.035
4/26/2016	0.12	0.14	0.017			
4/27/2016				0.15	0.055	
6/27/2016			0.014			0.026
6/28/2016	0.11	0.12		0.12	0.05	
8/29/2016			0.013	0.12	0.051	0.027
8/30/2016	0.11	0.12				
11/1/2016			0.016			0.023
11/2/2016				0.13		
11/3/2016	0.12	0.13			0.057	
1/4/2017			0.015			0.019
1/5/2017	0.12	0.12		0.13	0.06	
3/10/2017			0.015			0.025
3/11/2017	0.13	0.12		0.12	0.065	
5/11/2017			0.013			0.021
5/12/2017	0.12	0.087		0.12	0.059	
3/20/2018			0.013			
3/21/2018		0.081				0.021
3/22/2018	0.1			0.098	0.051	
6/6/2018			0.012			0.017
6/7/2018	0.1	0.078		0.089	0.051	
11/19/2018			0.014	0.079	0.057	0.013
11/20/2018	0.095	0.11				
3/11/2019	0.097	0.16	0.011		0.057	0.011
3/12/2019				0.081		
5/28/2019			0.013			0.016
5/29/2019		0.17		0.077		
5/30/2019	0.096				0.051	

Time Series

Constituent: Barium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.077 (*)				
2/23/2016		<0.077 (*)	<0.077 (*)	<0.077 (*)	<0.077 (*)
4/25/2016	0.021				
4/26/2016		0.076	0.059		
4/27/2016				0.086	0.094
6/27/2016	0.016				
6/28/2016		0.066	0.055	0.066	0.083
8/29/2016	0.016	0.073	0.059	0.065	
8/30/2016					0.076
11/1/2016	0.018				
11/2/2016		0.076	0.069	0.072	
11/3/2016					0.12
1/4/2017	0.017				
1/5/2017		0.072	0.067	0.068	0.1
3/10/2017	0.022				
3/11/2017		0.07	0.071	0.071	0.11
5/11/2017	0.017	0.067			
5/12/2017			0.065	0.063	0.1
3/20/2018	0.018				
3/21/2018		0.06	0.061		
3/22/2018				0.064	
3/23/2018					0.093
6/6/2018	0.018				
6/7/2018				0.062	0.089
6/8/2018		0.058	0.06		
11/19/2018	0.019	0.062	0.14	0.058	
11/20/2018					0.077
3/11/2019	0.018			0.058	0.087
3/12/2019		0.06	0.15		
5/28/2019	0.021				
5/29/2019		0.065	0.16		
5/30/2019				0.06	0.08

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		0.00078 (J)	<0.0025			
2/23/2016	0.00033 (J)			<0.0025	<0.0025	
2/26/2016						<0.0025
4/25/2016						<0.0025
4/26/2016	<0.0025	<0.0025	<0.0025			
4/27/2016				<0.0025	<0.0025	
6/27/2016			<0.0025			<0.0025
6/28/2016	0.00057 (J)	<0.0025		<0.0025	<0.0025	
8/29/2016			<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	0.00061 (J)	<0.0025				
11/1/2016			<0.0025			<0.0025
11/2/2016				<0.0025		
11/3/2016	0.0004 (J)	<0.0025			<0.0025	
1/4/2017			<0.0025			<0.0025
1/5/2017	0.00055 (J)	<0.0025		<0.0025	<0.0025	
3/10/2017			<0.0025			<0.0025
3/11/2017	0.00054 (J)	0.0011 (J)		<0.0025	<0.0025	
5/11/2017			<0.0025			<0.0025
5/12/2017	0.00037 (J)	<0.0025		<0.0025	<0.0025	
3/20/2018			<0.0025			
3/21/2018		0.0025				<0.0025
3/22/2018	0.00039 (J)			<0.0025	<0.0025	
6/6/2018			<0.0025			<0.0025
6/7/2018	0.00044 (J)	0.00092 (J)		<0.0025	<0.0025	
11/19/2018			<0.0025	<0.0025	<0.0025	<0.0025
11/20/2018	0.0004 (J)	0.0011 (J)				
3/11/2019	<0.0025	0.0013 (J)	<0.0025		<0.0025	<0.0025
3/12/2019				<0.0025		

Time Series

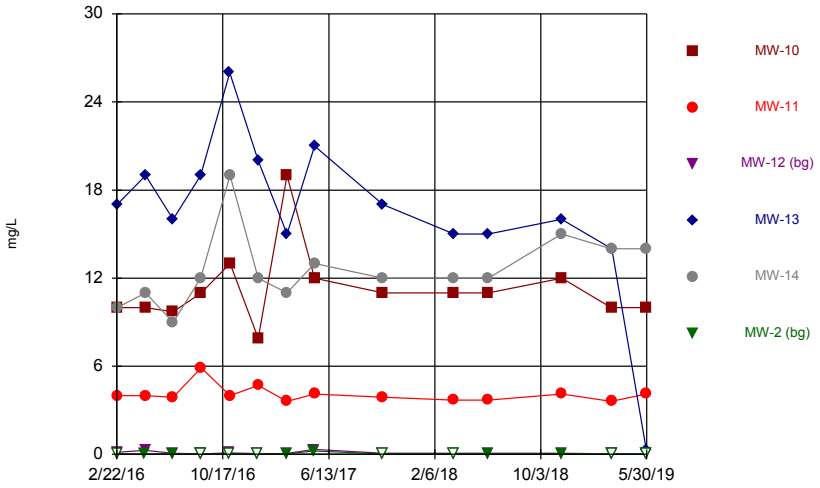
Constituent: Beryllium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0025				
2/23/2016		0.0022 (J)	<0.0025	0.0012 (J)	0.0011 (J)
4/25/2016	<0.0025				
4/26/2016		0.0017 (J)	<0.0025		
4/27/2016				<0.0025	<0.0025
6/27/2016	<0.0025				
6/28/2016		0.0017 (J)	<0.0025	0.0015 (J)	0.00069 (J)
8/29/2016	<0.0025	<0.0025	<0.0025	0.0013 (J)	
8/30/2016					0.0007 (J)
11/1/2016	<0.0025				
11/2/2016		0.00087 (J)	<0.0025	0.0012 (J)	
11/3/2016					<0.0025
1/4/2017	<0.0025				
1/5/2017		0.00039 (J)	<0.0025	0.0014 (J)	0.00039 (J)
3/10/2017	<0.0025				
3/11/2017		0.0014 (J)	<0.0025	0.0014 (J)	0.00043 (J)
5/11/2017	<0.0025	0.00093 (J)			
5/12/2017			<0.0025	0.0012 (J)	<0.0025
3/20/2018	<0.0025				
3/21/2018		0.0014 (J)	<0.0025		
3/22/2018				0.0014 (J)	
3/23/2018					<0.0025
6/6/2018	<0.0025				
6/7/2018				0.0014 (J)	<0.0025
6/8/2018		0.0014 (J)	<0.0025		
11/19/2018	<0.0025	0.0016 (J)	<0.0025	0.0016 (J)	
11/20/2018					<0.0025
3/11/2019	<0.0025			0.0011 (J)	<0.0025
3/12/2019		0.0012 (J)	<0.0025		

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

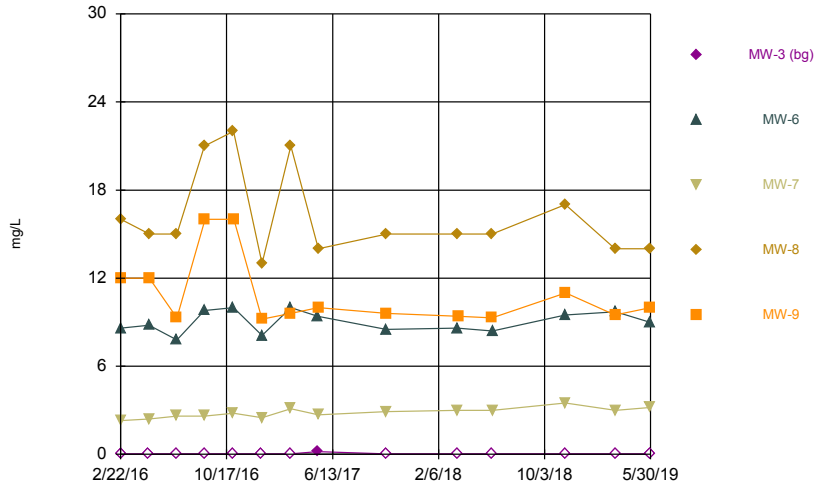
Time Series



Constituent: Boron Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

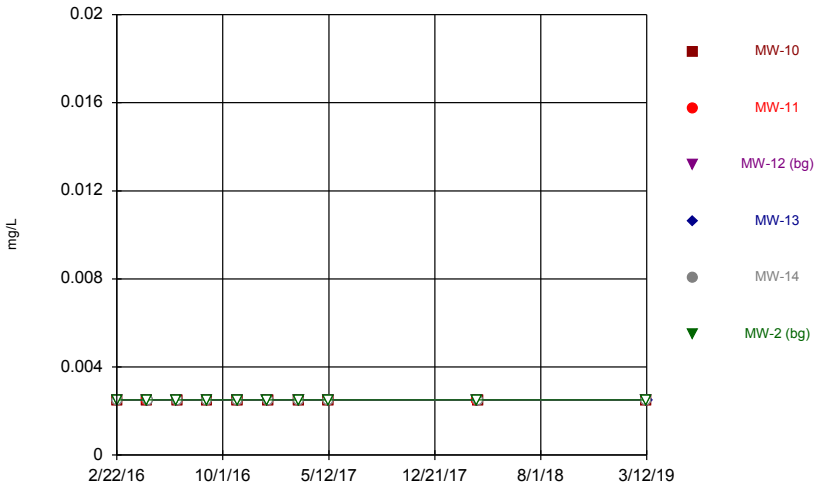
Time Series



Constituent: Boron Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

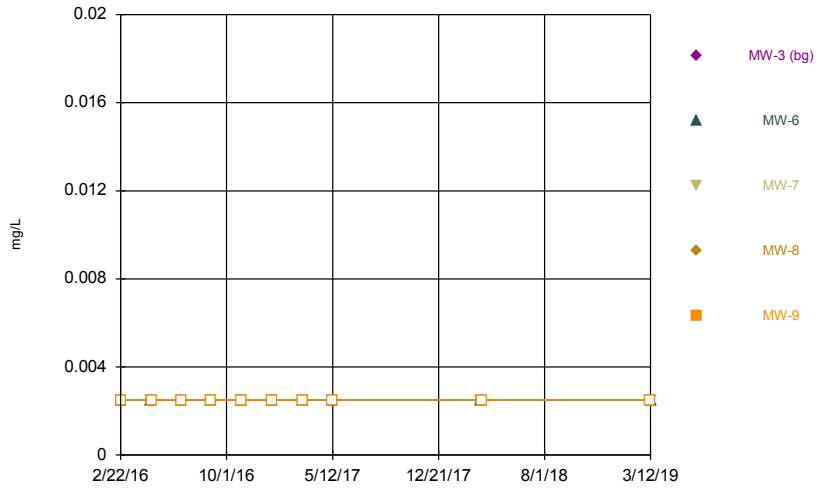
Time Series



Constituent: Cadmium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		4	0.14 (J)			<0.05
2/23/2016	10			17	10	
4/25/2016						0.022 (J)
4/26/2016	10	4	0.27			
4/27/2016				19	11	
6/27/2016			0.083			0.032 (J)
6/28/2016	9.7	3.9		16	9	
8/29/2016			<0.05 (*)	19	12	<0.05 (*)
8/30/2016	11	5.9				
11/1/2016			0.1			<0.05
11/2/2016				26		
11/3/2016	13	4			19	
1/4/2017			0.062			<0.05
1/5/2017	7.9	4.7		20	12	
3/10/2017			0.06			0.032 (J)
3/11/2017	19	3.6		15	11	
5/11/2017			0.33			0.23
5/12/2017	12	4.1		21	13	
10/12/2017			0.082			<0.05
10/13/2017	11	3.9		17	12	
3/20/2018			0.072			
3/21/2018		3.7				<0.05
3/22/2018	11			15	12	
6/6/2018			0.077			0.027 (J)
6/7/2018	11	3.7		15	12	
11/19/2018			0.071	16	15	0.045 (J)
11/20/2018	12	4.1				
3/11/2019	10	3.6	<0.05		14	<0.05
3/12/2019				14		
5/28/2019			0.024 (J)			<0.05
5/29/2019		4.1		0.28		
5/30/2019	10				14	

Time Series

Constituent: Boron (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.05				
2/23/2016		8.6	2.3	16	12
4/25/2016	<0.05				
4/26/2016		8.8	2.4		
4/27/2016				15	12
6/27/2016	<0.05				
6/28/2016		7.8	2.6	15	9.3
8/29/2016	<0.05	9.8	2.6	21	
8/30/2016					16
11/1/2016	<0.05				
11/2/2016		10	2.8	22	
11/3/2016					16
1/4/2017	<0.05				
1/5/2017		8.1	2.5	13	9.2
3/10/2017	<0.05				
3/11/2017		10	3.1	21	9.6
5/11/2017	0.18	9.4			
5/12/2017			2.7	14	10
10/12/2017	<0.05	8.5	2.9		
10/13/2017				15	9.6
3/20/2018	<0.05				
3/21/2018		8.6	3		
3/22/2018				15	
3/23/2018					9.4
6/6/2018	<0.05				
6/7/2018				15	9.3
6/8/2018		8.4	3		
11/19/2018	<0.05	9.5	3.5	17	
11/20/2018					11
3/11/2019	<0.05			14	9.5
3/12/2019		9.7	3		
5/28/2019	<0.05				
5/29/2019		9	3.2		
5/30/2019				14	10

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0025	<0.0025			<0.0025
2/23/2016	<0.0025			<0.0025	<0.0025	
4/25/2016						<0.0025
4/26/2016	<0.0025	<0.0025	<0.0025			
4/27/2016				<0.0025	<0.0025	
6/27/2016			<0.0025			<0.0025
6/28/2016	<0.0025	<0.0025		<0.0025	<0.0025	
8/29/2016			<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	<0.0025	<0.0025				
11/1/2016			<0.0025			<0.0025
11/2/2016				<0.0025		
11/3/2016	<0.0025	<0.0025			<0.0025	
1/4/2017			<0.0025			<0.0025
1/5/2017	<0.0025	<0.0025		<0.0025	<0.0025	
3/10/2017			<0.0025			<0.0025
3/11/2017	<0.0025	<0.0025		<0.0025	<0.0025	
5/11/2017			<0.0025			<0.0025
5/12/2017	<0.0025	<0.0025		<0.0025	<0.0025	
3/20/2018			<0.0025			
3/21/2018		<0.0025				<0.0025
3/22/2018	<0.0025			<0.0025	<0.0025	
3/11/2019	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025
3/12/2019				<0.0025		

Time Series

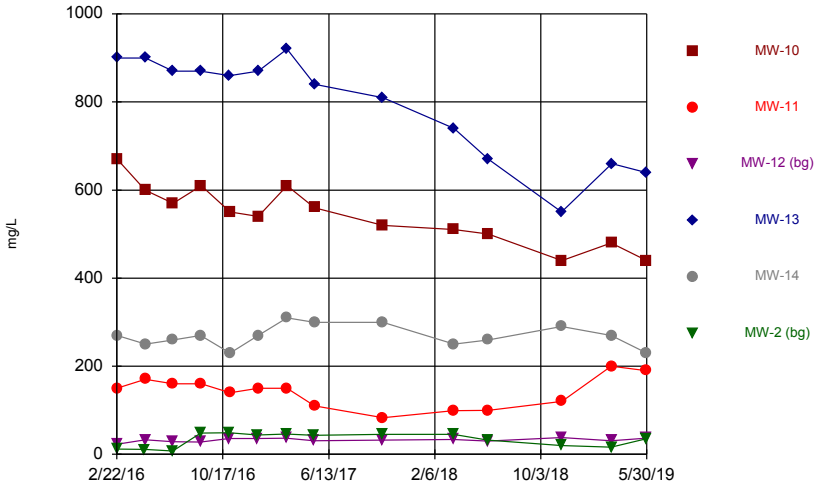
Constituent: Cadmium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0025				
2/23/2016		<0.0025	<0.0025	<0.0025	<0.0025
4/25/2016	<0.0025				
4/26/2016		<0.0025	<0.0025		
4/27/2016				<0.0025	<0.0025
6/27/2016	<0.0025				
6/28/2016		<0.0025	<0.0025	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	
8/30/2016					<0.0025
11/1/2016	<0.0025				
11/2/2016		<0.0025	<0.0025	<0.0025	
11/3/2016					<0.0025
1/4/2017	<0.0025				
1/5/2017		<0.0025	<0.0025	<0.0025	<0.0025
3/10/2017	<0.0025				
3/11/2017		<0.0025	<0.0025	<0.0025	<0.0025
5/11/2017	<0.0025	<0.0025			
5/12/2017			<0.0025	<0.0025	<0.0025
3/20/2018	<0.0025				
3/21/2018		<0.0025	<0.0025		
3/22/2018				<0.0025	
3/23/2018					<0.0025
3/11/2019	<0.0025			<0.0025	<0.0025
3/12/2019		<0.0025	<0.0025		

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

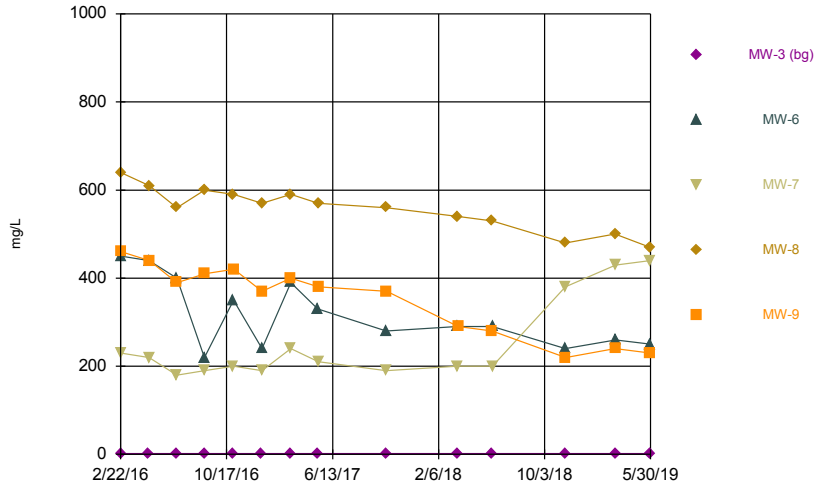
Time Series



Constituent: Calcium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

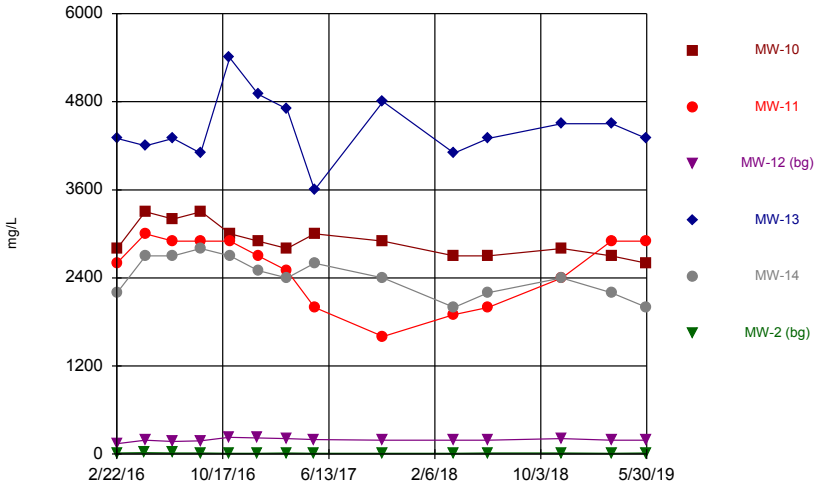
Time Series



Constituent: Calcium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

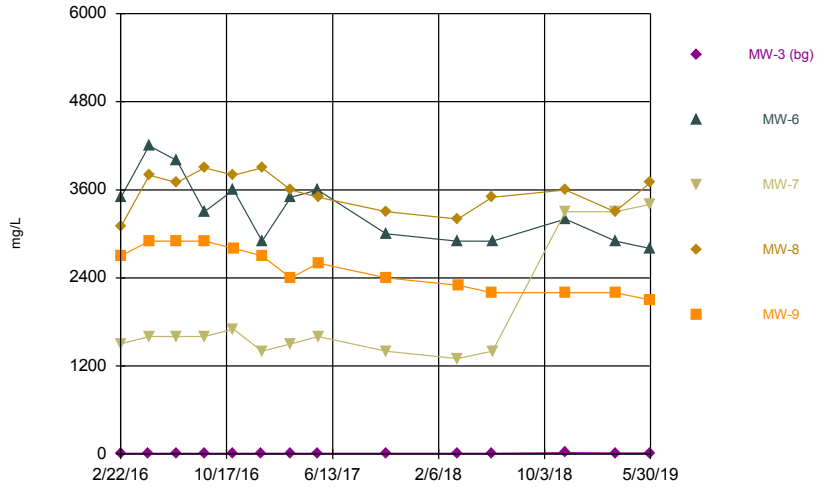
Time Series



Constituent: Chloride Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Time Series



Constituent: Chloride Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		150	23			12
2/23/2016	670			900	270	
4/25/2016						11
4/26/2016	600	170	33			
4/27/2016				900	250	
6/27/2016			29			7.7
6/28/2016	570	160		870	260	
8/29/2016			28	870	270	48
8/30/2016	610	160				
11/1/2016			36			49
11/2/2016				860		
11/3/2016	550	140			230	
1/4/2017			36			44
1/5/2017	540	150		870	270	
3/10/2017			37			46
3/11/2017	610	150		920	310	
5/11/2017			31			43
5/12/2017	560	110		840	300	
10/12/2017			32			45
10/13/2017	520	83		810	300	
3/20/2018			34			
3/21/2018		99				45
3/22/2018	510			740	250	
6/6/2018			30			32
6/7/2018	500	100		670	260	
11/19/2018			38	550	290	20
11/20/2018	440	120				
3/11/2019	480	200	31		270	16
3/12/2019				660		
5/28/2019			37			35
5/29/2019		190		640		
5/30/2019	440				230	

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	1.9				
2/23/2016		450	230	640	460
4/25/2016	1.8				
4/26/2016		440	220		
4/27/2016				610	440
6/27/2016	1.7				
6/28/2016		400	180	560	390
8/29/2016	1.7	220	190	600	
8/30/2016					410
11/1/2016	1.9				
11/2/2016		350	200	590	
11/3/2016					420
1/4/2017	1.8				
1/5/2017		240	190	570	370
3/10/2017	1.9				
3/11/2017		390	240	590	400
5/11/2017	1.7	330			
5/12/2017			210	570	380
10/12/2017	1.9	280	190		
10/13/2017				560	370
3/20/2018	1.9				
3/21/2018		290	200		
3/22/2018				540	
3/23/2018					290
6/6/2018	1.8				
6/7/2018				530	280
6/8/2018		290	200		
11/19/2018	1.8	240	380	480	
11/20/2018					220
3/11/2019	1.9			500	240
3/12/2019		260	430		
5/28/2019	2.1				
5/29/2019		250	440		
5/30/2019				470	230

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		2600	140			15
2/23/2016	2800			4300	2200	
4/25/2016						18
4/26/2016	3300	3000	190			
4/27/2016				4200	2700	
6/27/2016			170			17
6/28/2016	3200	2900		4300	2700	
8/29/2016			180	4100	2800	16
8/30/2016	3300	2900				
11/1/2016			230			11
11/2/2016				5400		
11/3/2016	3000	2900			2700	
1/4/2017			220			11
1/5/2017	2900	2700		4900	2500	
3/10/2017			210			14
3/11/2017	2800	2500		4700	2400	
5/11/2017			200			11
5/12/2017	3000	2000		3600	2600	
10/12/2017			190			12
10/13/2017	2900	1600		4800	2400	
3/20/2018			190			
3/21/2018		1900				9.3
3/22/2018	2700			4100	2000	
6/6/2018			190			13
6/7/2018	2700	2000		4300	2200	
11/19/2018			210	4500	2400	13
11/20/2018	2800	2400				
3/11/2019	2700	2900	190		2200	12
3/12/2019				4500		
5/28/2019			190			13
5/29/2019		2900		4300		
5/30/2019	2600				2000	

Time Series

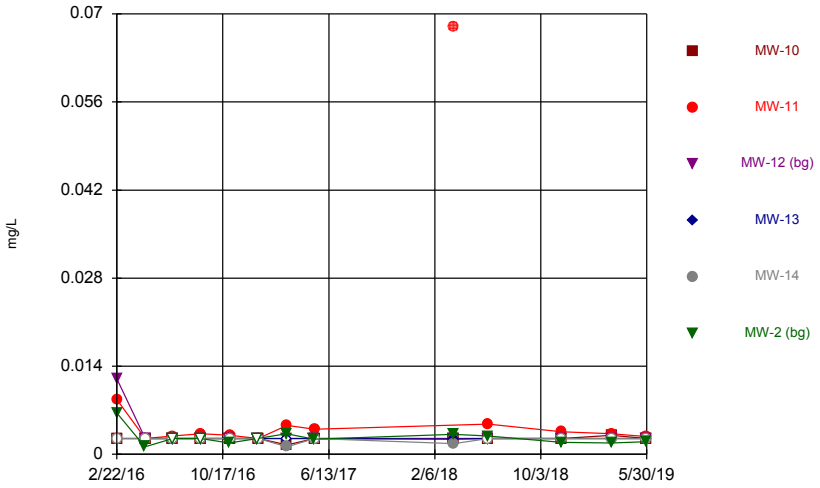
Constituent: Chloride (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	11				
2/23/2016		3500	1500	3100	2700
4/25/2016	10				
4/26/2016		4200	1600		
4/27/2016				3800	2900
6/27/2016	11				
6/28/2016		4000	1600	3700	2900
8/29/2016	11	3300	1600	3900	
8/30/2016					2900
11/1/2016	11				
11/2/2016		3600	1700	3800	
11/3/2016					2800
1/4/2017	11				
1/5/2017		2900	1400	3900	2700
3/10/2017	11				
3/11/2017		3500	1500	3600	2400
5/11/2017	12	3600			
5/12/2017			1600	3500	2600
10/12/2017	12	3000	1400		
10/13/2017				3300	2400
3/20/2018	11				
3/21/2018		2900	1300		
3/22/2018				3200	
3/23/2018					2300
6/6/2018	11				
6/7/2018				3500	2200
6/8/2018		2900	1400		
11/19/2018	19.9 (D)	3200	3300	3600	
11/20/2018					2200
3/11/2019	13			3300	2200
3/12/2019		2900	3300		
5/28/2019	13				
5/29/2019		2800	3400		
5/30/2019				3700	2100

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

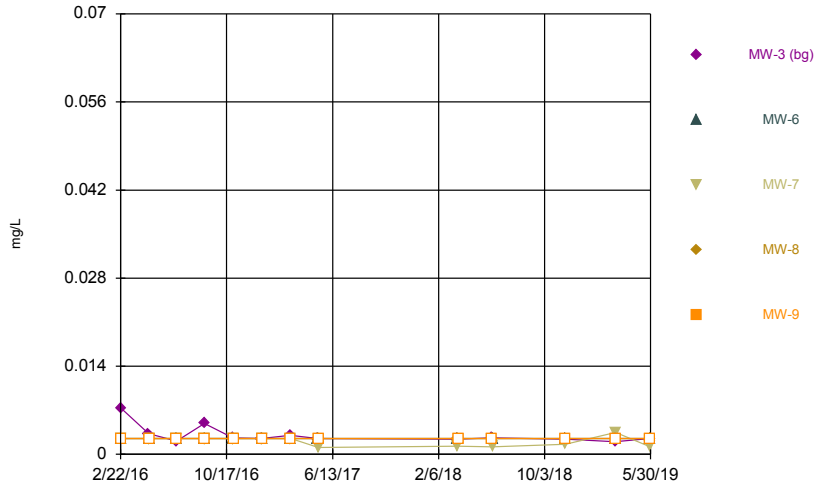
Time Series



Constituent: Chromium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

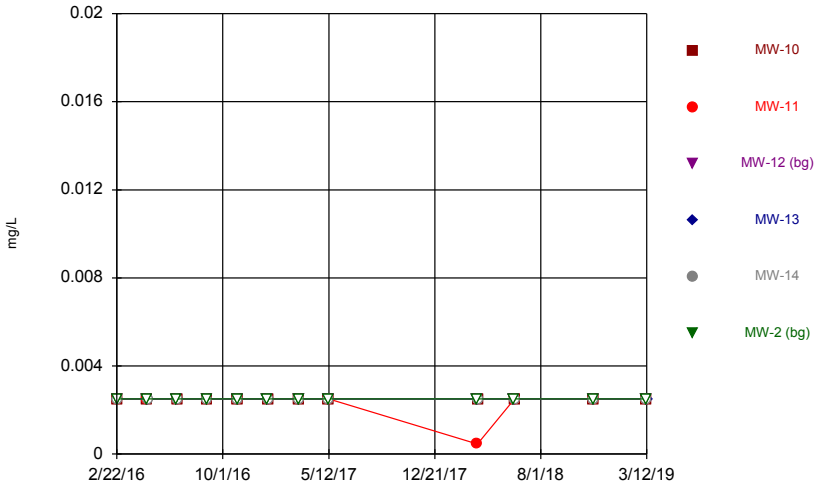
Time Series



Constituent: Chromium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

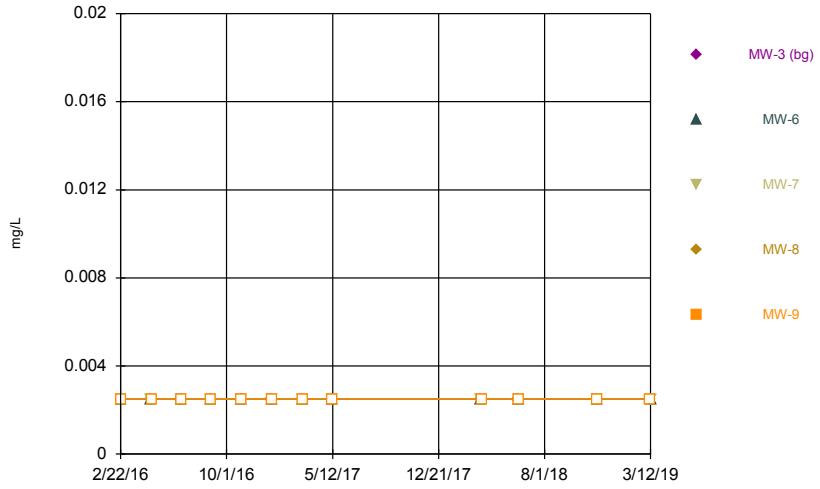
Time Series



Constituent: Cobalt Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		0.0087 (J)	0.012 (J)			0.0066 (JV)
2/23/2016	<0.0025			<0.0025	<0.0025	
4/25/2016						0.0012 (J)
4/26/2016	<0.0025	<0.0025	<0.0025			
4/27/2016				<0.0025	<0.0025	
6/27/2016			<0.0025			<0.0025
6/28/2016	<0.0025	0.0029		<0.0025	<0.0025	
8/29/2016			<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	<0.0025	0.0033				
11/1/2016			<0.0025			0.0018 (J)
11/2/2016				<0.0025		
11/3/2016	<0.0025	0.003			<0.0025	
1/4/2017			<0.0025			<0.0025 (*)
1/5/2017	<0.0025	<0.0025 (*)		<0.0025	<0.0025	
3/10/2017			<0.0025			0.0033
3/11/2017	0.0015 (J)	0.0046		<0.0025	0.0012 (J)	
5/11/2017			<0.0025			0.0024 (J)
5/12/2017	<0.0025	0.004		<0.0025	<0.0025	
3/20/2018			<0.0025			
3/21/2018		0.068 (o)				0.0032
3/22/2018	<0.0025			0.0024 (J)	0.0017 (J)	
6/6/2018			<0.0025			0.0029
6/7/2018	<0.0025	0.0048		<0.0025	<0.0025	
11/19/2018			<0.0025	<0.0025	<0.0025	0.0019 (J)
11/20/2018	<0.0025	0.0036				
3/11/2019	0.003	0.0033	<0.0025		<0.0025	0.0018 (J)
3/12/2019				<0.0025		
5/28/2019			<0.0025			0.002 (J)
5/29/2019		0.0028		<0.0025		
5/30/2019	<0.0025				<0.0025	

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	0.0074 (J)				
2/23/2016		<0.0025	<0.0025	<0.0025	<0.0025
4/25/2016	0.0033				
4/26/2016		<0.0025	<0.0025		
4/27/2016				<0.0025	<0.0025
6/27/2016	0.0021 (J)				
6/28/2016		<0.0025	<0.0025	<0.0025	<0.0025
8/29/2016	0.0049	<0.0025	<0.0025	<0.0025	
8/30/2016					<0.0025
11/1/2016	0.0026				
11/2/2016		<0.0025	<0.0025	<0.0025	
11/3/2016					<0.0025
1/4/2017	<0.0025 (*)				
1/5/2017		<0.0025	<0.0025 (*)	<0.0025	<0.0025
3/10/2017	0.003				
3/11/2017		<0.0025	0.0025	<0.0025	<0.0025
5/11/2017	<0.0025	<0.0025			
5/12/2017			0.0011 (J)	<0.0025	<0.0025
3/20/2018	0.0024 (J)				
3/21/2018		<0.0025	0.0013 (J)		
3/22/2018				<0.0025	
3/23/2018					<0.0025
6/6/2018	0.0026				
6/7/2018				<0.0025	<0.0025
6/8/2018		<0.0025	0.0012 (J)		
11/19/2018	0.0024 (J)	<0.0025	0.0016 (J)	<0.0025	
11/20/2018					<0.0025
3/11/2019	0.002 (J)			<0.0025	<0.0025
3/12/2019		<0.0025	0.0035		
5/28/2019	<0.0025				
5/29/2019		<0.0025	0.0012 (J)		
5/30/2019				<0.0025	<0.0025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0025	<0.0025			<0.0025
2/23/2016	<0.0025			<0.0025	<0.0025	
4/25/2016						<0.0025
4/26/2016	<0.0025	<0.0025	<0.0025			
4/27/2016				<0.0025	<0.0025	
6/27/2016			<0.0025			<0.0025
6/28/2016	<0.0025	<0.0025		<0.0025	<0.0025	
8/29/2016			<0.0025	<0.0025	<0.0025	<0.0025
8/30/2016	<0.0025	<0.0025				
11/1/2016			<0.0025			<0.0025
11/2/2016				<0.0025		
11/3/2016	<0.0025	<0.0025			<0.0025	
1/4/2017			<0.0025			<0.0025
1/5/2017	<0.0025	<0.0025		<0.0025	<0.0025	
3/10/2017			<0.0025			<0.0025
3/11/2017	<0.0025	<0.0025		<0.0025	<0.0025	
5/11/2017			<0.0025			<0.0025
5/12/2017	<0.0025	<0.0025		<0.0025	<0.0025	
3/20/2018			<0.0025			
3/21/2018		0.00046 (J)				<0.0025
3/22/2018	<0.0025			<0.0025	<0.0025	
6/6/2018			<0.0025			<0.0025
6/7/2018	<0.0025	<0.0025		<0.0025	<0.0025	
11/19/2018			<0.0025	<0.0025	<0.0025	<0.0025
11/20/2018	<0.0025	<0.0025				
3/11/2019	<0.0025	<0.0025	<0.0025		<0.0025	<0.0025
3/12/2019				<0.0025		

Time Series

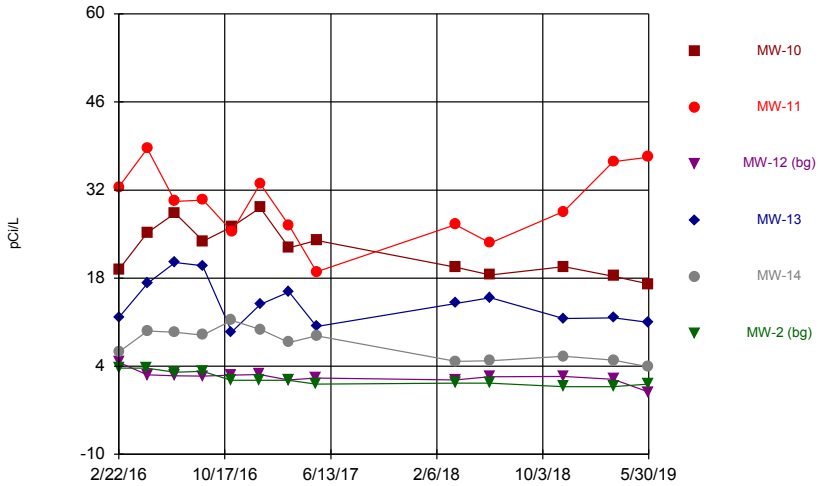
Constituent: Cobalt (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0025				
2/23/2016		<0.0025	<0.0025	<0.0025	<0.0025
4/25/2016	<0.0025				
4/26/2016		<0.0025	<0.0025		
4/27/2016				<0.0025	<0.0025
6/27/2016	<0.0025				
6/28/2016		<0.0025	<0.0025	<0.0025	<0.0025
8/29/2016	<0.0025	<0.0025	<0.0025	<0.0025	
8/30/2016					<0.0025
11/1/2016	<0.0025				
11/2/2016		<0.0025	<0.0025	<0.0025	
11/3/2016					<0.0025
1/4/2017	<0.0025				
1/5/2017		<0.0025	<0.0025	<0.0025	<0.0025
3/10/2017	<0.0025				
3/11/2017		<0.0025	<0.0025	<0.0025	<0.0025
5/11/2017	<0.0025	<0.0025			
5/12/2017			<0.0025	<0.0025	<0.0025
3/20/2018	<0.0025				
3/21/2018		<0.0025	<0.0025		
3/22/2018				<0.0025	
3/23/2018					<0.0025
6/6/2018	<0.0025				
6/7/2018				<0.0025	<0.0025
6/8/2018		<0.0025	<0.0025		
11/19/2018	<0.0025	<0.0025	<0.0025	<0.0025	
11/20/2018					<0.0025
3/11/2019	<0.0025			<0.0025	<0.0025
3/12/2019		<0.0025	<0.0025		

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

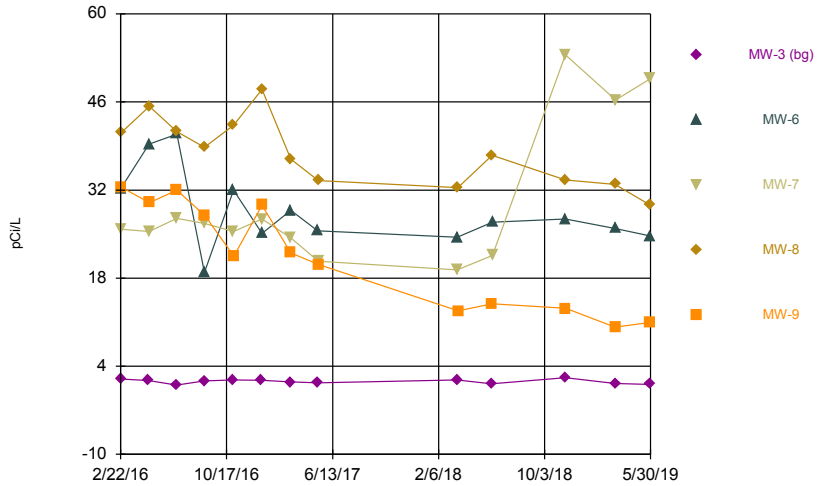
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

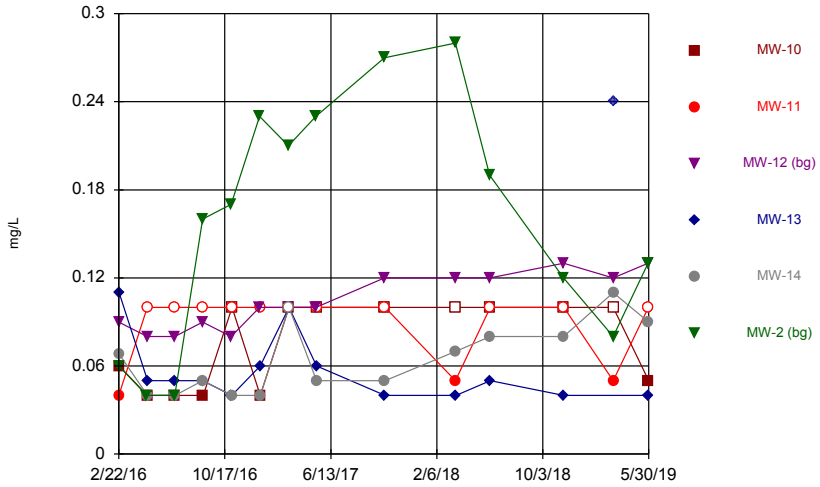
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

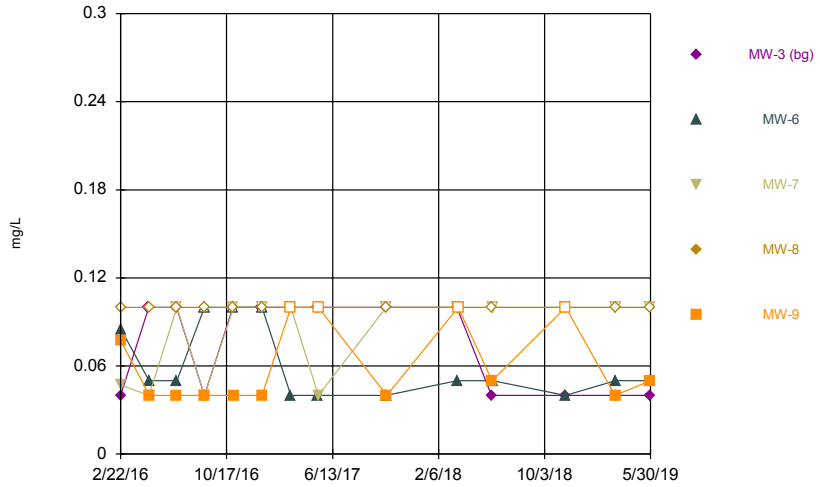
Time Series



Constituent: Fluoride Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		32.5	4.64			3.71
2/23/2016	19.4			11.8	6.3	
4/25/2016						3.7
4/26/2016	25.2	38.6	2.65			
4/27/2016				17.2	9.6	
6/27/2016			2.49			3.04
6/28/2016	28.3	30.2		20.5	9.41	
8/29/2016			2.45	20	8.93	3.2
8/30/2016	23.9	30.4				
11/1/2016			2.59			1.75
11/2/2016				9.47	11.3	
11/3/2016	26.2	25.4				
1/4/2017			2.69			1.79
1/5/2017	29.2	33		13.8	9.88	
3/10/2017			1.84			1.78
3/11/2017	22.8	26.4		15.8	7.75	
5/11/2017			2.12			1.14
5/12/2017	24	19		10.3	8.83	
3/20/2018			1.81			
3/21/2018		26.5				1.32
3/22/2018	19.7			14	4.78	
6/6/2018			2.32			1.32
6/7/2018	18.5	23.6		14.9	4.88	
11/19/2018			2.37	11.6	5.59	0.763
11/20/2018	19.8	28.6				
3/11/2019	18.3	36.5	1.93		4.99	0.777
3/12/2019				11.7		
5/28/2019			-0.0564 (U)			1.16
5/29/2019		37.2		11		
5/30/2019	17.1				3.89	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	1.96				
2/23/2016		32.3	25.8	41.1	32.5
4/25/2016	1.71				
4/26/2016		39.3	25.4		
4/27/2016				45.3	30
6/27/2016	1				
6/28/2016		40.9	27.5	41.3	32
8/29/2016	1.69	18.9	26.7	38.8	
8/30/2016					27.9
11/1/2016	1.83				
11/2/2016		32	25.4	42.3	
11/3/2016					21.5
1/4/2017	1.75				
1/5/2017		25.1	27.4	48	29.6
3/10/2017	1.5				
3/11/2017		28.8	24.4	36.9	22
5/11/2017	1.34	25.5			
5/12/2017			20.7	33.5	20.2
3/20/2018	1.82				
3/21/2018		24.5	19.3		
3/22/2018				32.4	
3/23/2018					12.8
6/6/2018	1.19				
6/7/2018				37.5	13.9
6/8/2018		26.9	21.6		
11/19/2018	2.18	27.4	53.5	33.6	
11/20/2018					13.2
3/11/2019	1.24			32.9	10.2
3/12/2019		25.9	46.3		
5/28/2019	1.13				
5/29/2019		24.7	49.7		
5/30/2019				29.6	11

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		0.04 (J)	0.09 (J)			0.06 (J)
2/23/2016	0.06 (J)			0.11	0.068 (J)	
4/25/2016						0.04 (J)
4/26/2016	0.04 (J)	<0.1	0.08 (J)			
4/27/2016				0.05 (J)	0.04 (J)	
6/27/2016			0.08 (J)			0.04 (J)
6/28/2016	0.04 (J)	<0.1		0.05 (J)	0.04 (J)	
8/29/2016			0.09 (J)	0.05 (J)	0.05 (J)	0.16
8/30/2016	0.04 (J)	<0.1				
11/1/2016			0.08 (J)			0.17
11/2/2016				0.04 (J)		
11/3/2016	<0.1	<0.1			0.04 (J)	
1/4/2017			0.1			0.23
1/5/2017	0.04 (J)	<0.1		0.06 (J)	0.04 (J)	
3/10/2017			0.1			0.21
3/11/2017	<0.1	<0.1		<0.1	<0.1	
5/11/2017			0.1			0.23
5/12/2017	<0.1	<0.1		0.06 (J)	0.05 (J)	
10/12/2017			0.12			0.27
10/13/2017	<0.1	<0.1		0.04	0.05	
3/20/2018			0.12			
3/21/2018		0.05 (J)				0.28
3/22/2018	<0.1			0.04 (J)	0.07 (J)	
6/6/2018			0.12			0.19
6/7/2018	<0.1	<0.1		0.05 (J)	0.08 (J)	
11/19/2018			0.13	0.04 (J)	0.08 (J)	0.12
11/20/2018	<0.1	<0.1				
3/11/2019	<0.1	0.05 (J)	0.12		0.11	0.08 (J)
3/12/2019				0.24 (o)		
5/28/2019			0.13			0.13
5/29/2019		<0.1		0.04 (J)		
5/30/2019	0.05 (J)				0.09 (J)	

Time Series

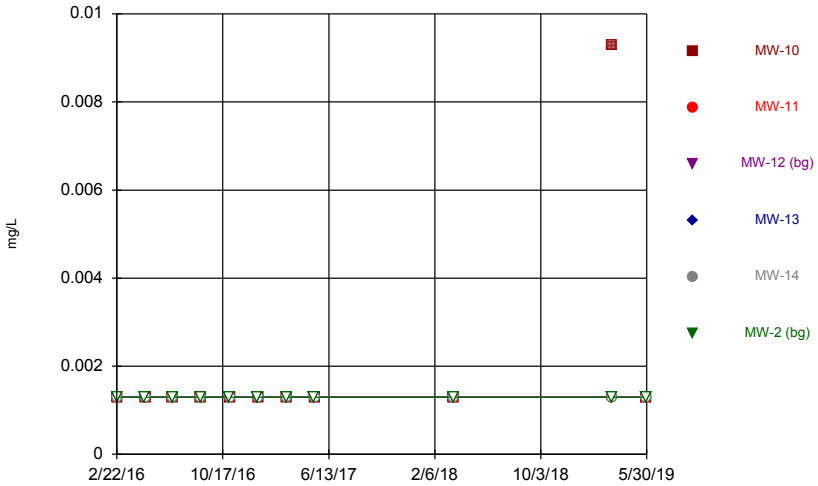
Constituent: Fluoride (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	0.04 (J)				
2/23/2016		0.085 (J)	0.047 (J)	<0.1	0.077 (J)
4/25/2016	<0.1				
4/26/2016		0.05 (J)	0.04 (J)		
4/27/2016				<0.1	0.04 (J)
6/27/2016	<0.1				
6/28/2016		0.05 (J)	<0.1	<0.1	0.04 (J)
8/29/2016	0.04 (J)	<0.1	0.04 (J)	<0.1	
8/30/2016					0.04 (J)
11/1/2016	<0.1				
11/2/2016		<0.1	<0.1	<0.1	
11/3/2016					0.04 (J)
1/4/2017	<0.1				
1/5/2017		<0.1	<0.1	<0.1	0.04 (J)
3/10/2017	<0.1				
3/11/2017		0.04 (J)	<0.1	<0.1	<0.1
5/11/2017	<0.1	0.04 (J)			
5/12/2017			0.04 (J)	<0.1	<0.1
10/12/2017	<0.1	0.04	<0.1		
10/13/2017				<0.1	0.04
3/20/2018	<0.1				
3/21/2018		0.05 (J)	<0.1		
3/22/2018				<0.1	
3/23/2018					<0.1
6/6/2018	0.04 (J)				
6/7/2018				<0.1	0.05 (J)
6/8/2018		0.05 (J)	<0.1		
11/19/2018	0.04 (J)	0.04 (J)	<0.1	<0.1	
11/20/2018					<0.1
3/11/2019	0.04 (J)			<0.1	0.04 (J)
3/12/2019		0.05 (J)	<0.1		
5/28/2019	0.04 (J)				
5/29/2019		0.05 (J)	<0.1		
5/30/2019				<0.1	0.05 (J)

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

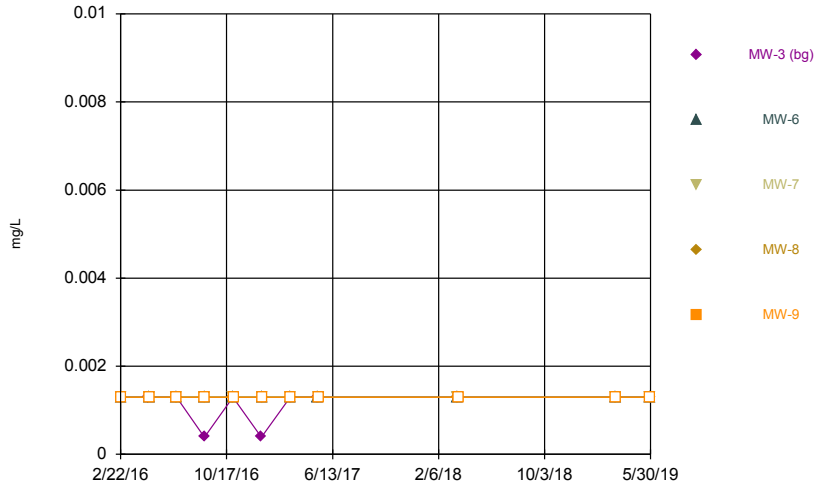
Time Series



Constituent: Lead Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

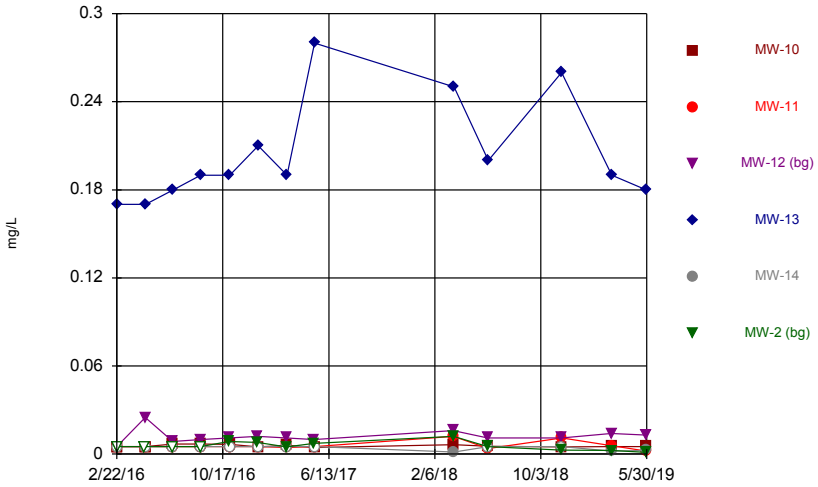
Time Series



Constituent: Lead Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

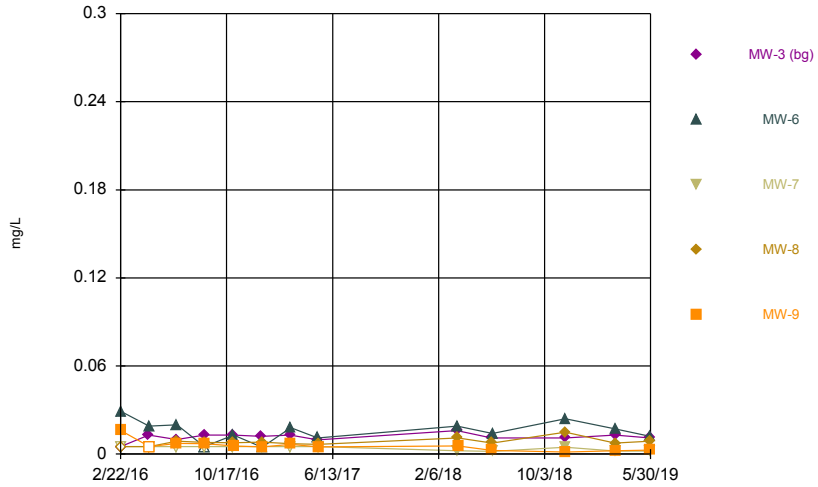
Time Series



Constituent: Lithium Analysis Run 10/15/2019 9:23 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Lithium Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Lead (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0013	<0.0013			<0.0013
2/23/2016	<0.0013			<0.0013	<0.0013	
4/25/2016						<0.0013
4/26/2016	<0.0013	<0.0013	<0.0013			
4/27/2016				<0.0013	<0.0013	
6/27/2016			<0.0013			<0.0013
6/28/2016	<0.0013	<0.0013		<0.0013	<0.0013	
8/29/2016			<0.0013	<0.0013	<0.0013	<0.0013
8/30/2016	<0.0013	<0.0013				
11/1/2016			<0.0013			<0.0013
11/2/2016				<0.0013		
11/3/2016	<0.0013	<0.0013			<0.0013	
1/4/2017			<0.0013			<0.0013
1/5/2017	<0.0013	<0.0013		<0.0013	<0.0013	
3/10/2017			<0.0013			<0.0013
3/11/2017	<0.0013	<0.0013		<0.0013	<0.0013	
5/11/2017			<0.0013			<0.0013
5/12/2017	<0.0013	<0.0013		<0.0013	<0.0013	
3/20/2018			<0.0013			
3/21/2018		<0.0013				<0.0013
3/22/2018	<0.0013			<0.0013	<0.0013	
3/11/2019	0.0093 (o)	<0.0013	<0.0013		<0.0013	<0.0013
3/12/2019				<0.0013		
5/28/2019			<0.0013			<0.0013
5/29/2019		0.0013		<0.0013		
5/30/2019	<0.0013				<0.0013	

Time Series

Constituent: Lead (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0013				
2/23/2016		<0.0013	<0.0013	<0.0013	<0.0013
4/25/2016	<0.0013				
4/26/2016		<0.0013	<0.0013		
4/27/2016				<0.0013	<0.0013
6/27/2016	<0.0013				
6/28/2016		<0.0013	<0.0013	<0.0013	<0.0013
8/29/2016	0.00039 (J)	<0.0013	<0.0013	<0.0013	
8/30/2016					<0.0013
11/1/2016	<0.0013				
11/2/2016		<0.0013	<0.0013	<0.0013	
11/3/2016					<0.0013
1/4/2017	0.00039 (J)				
1/5/2017		<0.0013	<0.0013	<0.0013	<0.0013
3/10/2017	<0.0013				
3/11/2017		<0.0013	<0.0013	<0.0013	<0.0013
5/11/2017	<0.0013	<0.0013			
5/12/2017			<0.0013	<0.0013	<0.0013
3/20/2018	<0.0013				
3/21/2018		<0.0013	<0.0013		
3/22/2018				<0.0013	
3/23/2018					<0.0013
3/11/2019	<0.0013			<0.0013	<0.0013
3/12/2019		<0.0013	<0.0013		
5/28/2019	<0.0013				
5/29/2019		<0.0013	<0.0013		
5/30/2019				<0.0013	<0.0013

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.005	<0.005			<0.005
2/23/2016	<0.005			0.17	<0.005	
4/25/2016						<0.005
4/26/2016	<0.005	<0.005	0.025			
4/27/2016				0.17	<0.005	
6/27/2016			0.0085			<0.005
6/28/2016	0.0069	<0.005		0.18	<0.005	
8/29/2016			0.01	0.19	<0.005	<0.005
8/30/2016	0.0069	<0.005				
11/1/2016			0.011			0.0087
11/2/2016				0.19		
11/3/2016	0.0067	<0.005			<0.005	
1/4/2017			0.012			0.0079
1/5/2017	0.0049 (J)	<0.005		0.21	<0.005	
3/10/2017			0.011			0.0049 (J)
3/11/2017	0.006	0.0044 (J)		0.19	<0.005	
5/11/2017			0.0098			0.0073
5/12/2017	0.0044 (J)	<0.005		0.28	<0.005	
3/20/2018			0.016			
3/21/2018		0.012				0.012
3/22/2018	0.0065			0.25	0.0013 (J)	
6/6/2018			0.011			0.0051
6/7/2018	0.0054	0.0038 (J)		0.2	<0.005	
11/19/2018			0.011	0.26	<0.005	0.0028 (J)
11/20/2018	0.0048 (J)	0.011				
3/11/2019	0.0051	0.0058	0.014		0.002 (J)	0.0024 (J)
3/12/2019				0.19		
5/28/2019			0.013			0.0012 (J)
5/29/2019		0.0021 (J)		0.18		
5/30/2019	0.0051				0.0026 (J)	

Time Series

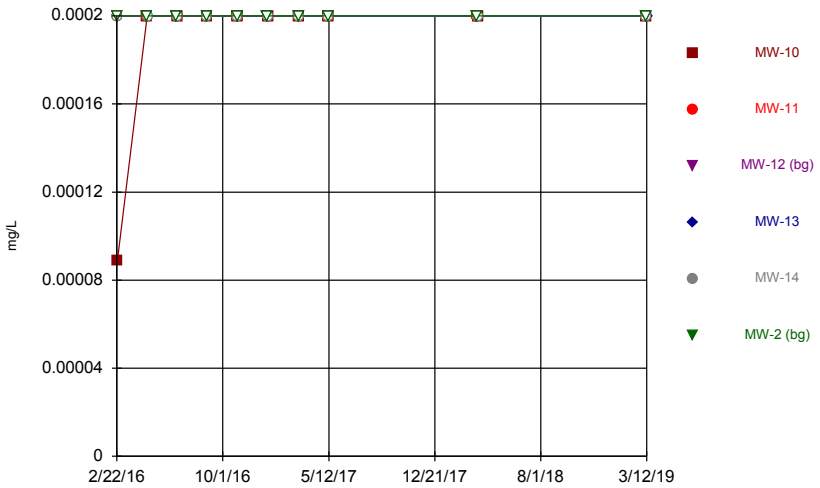
Constituent: Lithium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.005				
2/23/2016		0.029	<0.005	<0.005	0.016
4/25/2016	0.013				
4/26/2016		0.019 (J)	<0.005		
4/27/2016				<0.005	<0.005
6/27/2016	0.01				
6/28/2016		0.02	<0.005	0.0089	0.0072
8/29/2016	0.013	<0.005	<0.005	0.008	
8/30/2016					0.0071
11/1/2016	0.013				
11/2/2016		0.013	<0.005	0.0078	
11/3/2016					0.0055
1/4/2017	0.012				
1/5/2017		0.0047 (J)	<0.005	0.0081	0.0049 (J)
3/10/2017	0.013				
3/11/2017		0.018	<0.005	0.007	0.0067
5/11/2017	0.0096	0.011			
5/12/2017			<0.005	0.0067	0.0048 (J)
3/20/2018	0.016				
3/21/2018		0.019	0.0023 (J)		
3/22/2018				0.011	
3/23/2018					0.0056
6/6/2018	0.011				
6/7/2018				0.0076	0.0026 (J)
6/8/2018		0.014	0.0018 (J)		
11/19/2018	0.011	0.024	0.0047 (J)	0.015	
11/20/2018					0.0013 (J)
3/11/2019	0.013			0.0075	0.0023 (J)
3/12/2019		0.017	0.002 (J)		
5/28/2019	0.011				
5/29/2019		0.012	0.002 (J)		
5/30/2019				0.0089	0.0028 (J)

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

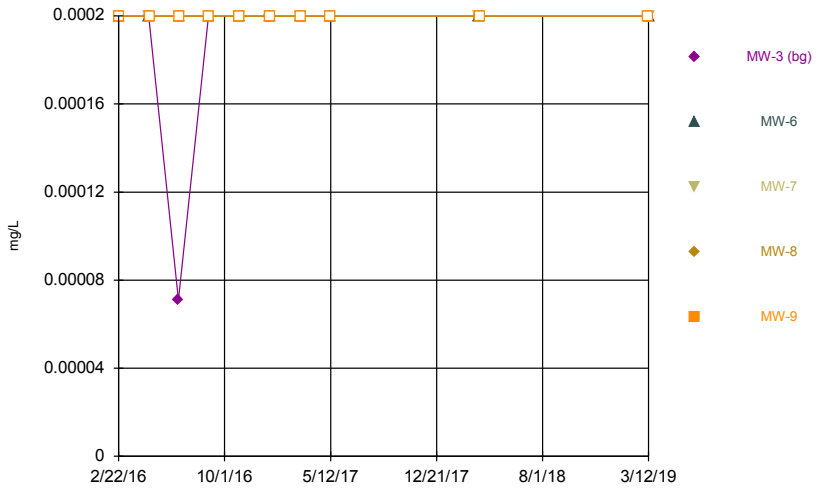
Time Series



Constituent: Mercury Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

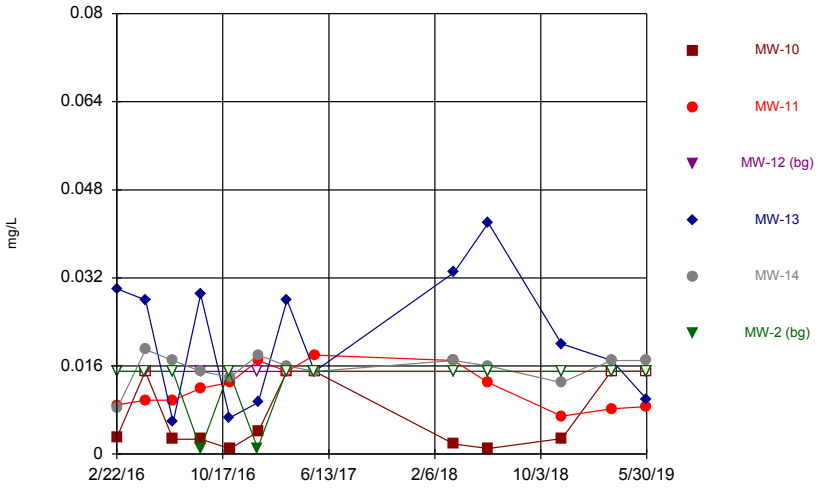
Time Series



Constituent: Mercury Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

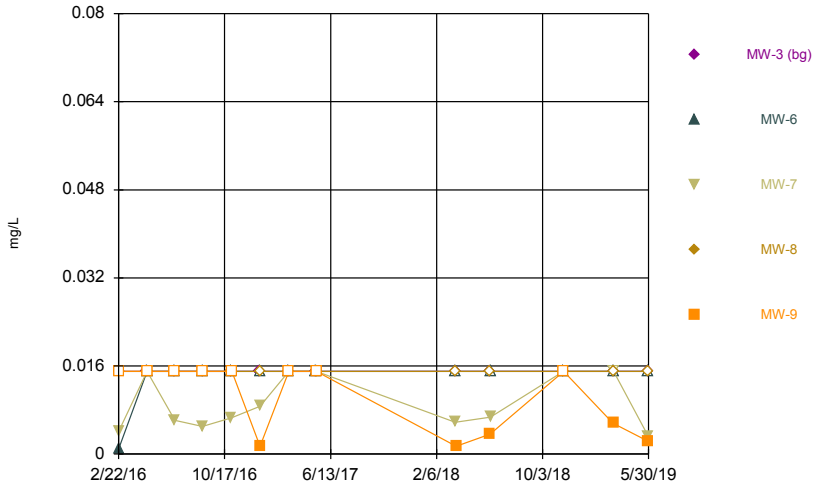
Time Series



Constituent: Molybdenum Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Molybdenum Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0002	<0.0002			<0.0002
2/23/2016	8.9E-05 (J)			<0.0002 (*)	<0.0002	
4/25/2016						<0.0002
4/26/2016	<0.0002	<0.0002	<0.0002			
4/27/2016				<0.0002	<0.0002	
6/27/2016			<0.0002			<0.0002
6/28/2016	<0.0002	<0.0002		<0.0002	<0.0002	
8/29/2016			<0.0002	<0.0002	<0.0002	<0.0002
8/30/2016	<0.0002	<0.0002				
11/1/2016			<0.0002			<0.0002
11/2/2016				<0.0002		
11/3/2016	<0.0002	<0.0002			<0.0002	
1/4/2017			<0.0002			<0.0002
1/5/2017	<0.0002	<0.0002		<0.0002	<0.0002	
3/10/2017			<0.0002			<0.0002
3/11/2017	<0.0002	<0.0002		<0.0002	<0.0002	
5/11/2017			<0.0002			<0.0002
5/12/2017	<0.0002	<0.0002		<0.0002	<0.0002	
3/20/2018			<0.0002			
3/21/2018		<0.0002				<0.0002
3/22/2018	<0.0002			<0.0002	<0.0002	
3/11/2019	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
3/12/2019				<0.0002		

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0002				
2/23/2016		<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002 (*)
4/25/2016	<0.0002				
4/26/2016		<0.0002	<0.0002		
4/27/2016				<0.0002	<0.0002
6/27/2016	7.1E-05 (J)				
6/28/2016		<0.0002	<0.0002	<0.0002	<0.0002
8/29/2016	<0.0002	<0.0002	<0.0002	<0.0002	
8/30/2016					<0.0002
11/1/2016	<0.0002				
11/2/2016		<0.0002	<0.0002	<0.0002	
11/3/2016					<0.0002
1/4/2017	<0.0002				
1/5/2017		<0.0002	<0.0002	<0.0002	<0.0002
3/10/2017	<0.0002				
3/11/2017		<0.0002	<0.0002	<0.0002	<0.0002
5/11/2017	<0.0002	<0.0002			
5/12/2017			<0.0002	<0.0002	<0.0002
3/20/2018	<0.0002				
3/21/2018		<0.0002	<0.0002		
3/22/2018				<0.0002	
3/23/2018					<0.0002
3/11/2019	<0.0002			<0.0002	<0.0002
3/12/2019		<0.0002	<0.0002		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		0.0089 (J)	<0.015			<0.015
2/23/2016	0.0031 (J)			0.03 (J)	0.0083 (J)	
4/25/2016						<0.015
4/26/2016	<0.015	0.0098 (J)	<0.015			
4/27/2016				0.028 (J)	0.019 (J)	
6/27/2016			<0.015			<0.015
6/28/2016	0.0027 (J)	0.0098 (J)		0.0058 (J)	0.017	
8/29/2016			<0.015	0.029	0.015	0.0009 (J)
8/30/2016	0.0027 (J)	0.012 (J)				
11/1/2016			<0.015			<0.015
11/2/2016				0.0066 (J)		
11/3/2016	0.00097 (J)	0.013 (J)			0.014 (J)	
1/4/2017			<0.015			0.0011 (J)
1/5/2017	0.0041 (J)	0.017		0.0094 (J)	0.018	
3/10/2017			<0.015			<0.015 (*)
3/11/2017	<0.015 (*)	<0.015 (*)		0.028	0.016	
5/11/2017			<0.015			<0.015
5/12/2017	<0.015 (*)	0.018		<0.015 (*)	0.015	
3/20/2018			<0.015			
3/21/2018		0.017				<0.015
3/22/2018	0.0018 (J)			0.033	0.017	
6/6/2018			<0.015			<0.015
6/7/2018	0.001 (J)	0.013 (J)		0.042	0.016	
11/19/2018			<0.015	0.02	0.013 (J)	<0.015
11/20/2018	0.0028 (J)	0.0069 (J)				
3/11/2019	<0.015	0.0082 (J)	<0.015		0.017	<0.015
3/12/2019				0.017		
5/28/2019			<0.015			<0.015
5/29/2019		0.0086 (J)		0.01 (J)		
5/30/2019	<0.015				0.017	

Time Series

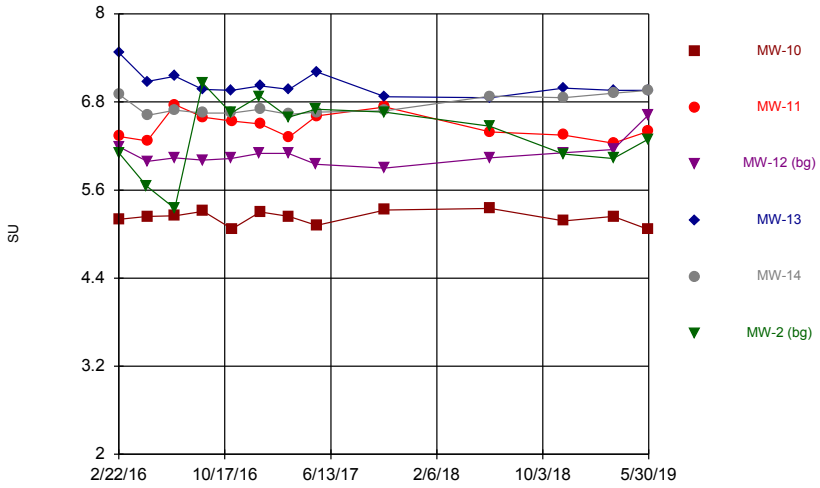
Constituent: Molybdenum (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.015				
2/23/2016		0.0011 (J)	0.0042 (J)	<0.015	<0.015
4/25/2016	<0.015				
4/26/2016		<0.015	<0.015		
4/27/2016				<0.015	<0.015
6/27/2016	<0.015				
6/28/2016		<0.015	0.0061 (J)	<0.015	<0.015
8/29/2016	<0.015	<0.015	0.005 (J)	<0.015	
8/30/2016					<0.015
11/1/2016	<0.015				
11/2/2016		<0.015	0.0066 (J)	<0.015	
11/3/2016					<0.015
1/4/2017	<0.015				
1/5/2017		<0.015	0.0087 (J)	<0.015	0.0014 (J)
3/10/2017	<0.015				
3/11/2017		<0.015 (*)	<0.015 (*)	<0.015	<0.015
5/11/2017	<0.015	<0.015			
5/12/2017			<0.015 (*)	<0.015	<0.015
3/20/2018	<0.015				
3/21/2018		<0.015	0.0058 (J)		
3/22/2018				<0.015	
3/23/2018					0.0014 (J)
6/6/2018	<0.015				
6/7/2018				<0.015	0.0036 (J)
6/8/2018		<0.015	0.0067 (J)		
11/19/2018	<0.015	<0.015	<0.015	<0.015	
11/20/2018					<0.015
3/11/2019	<0.015			<0.015	0.0056 (J)
3/12/2019		<0.015	<0.015		
5/28/2019	<0.015				
5/29/2019		<0.015	0.0033 (J)		
5/30/2019				<0.015	0.0023 (J)

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

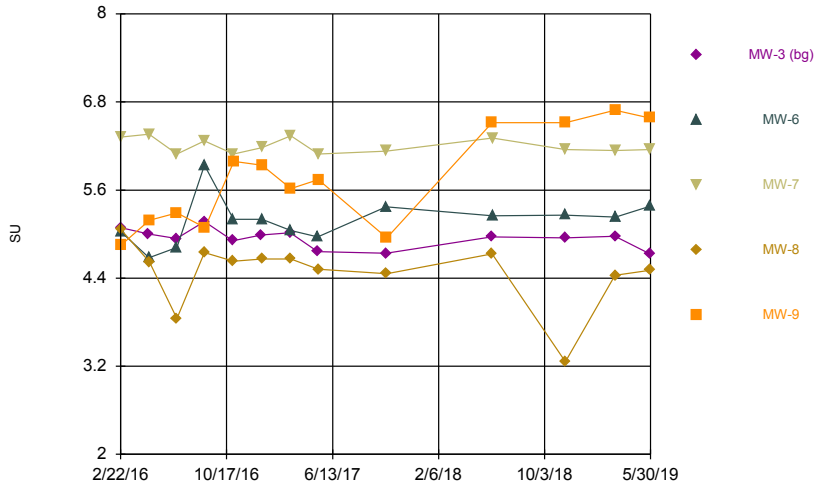
Time Series



Constituent: pH Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

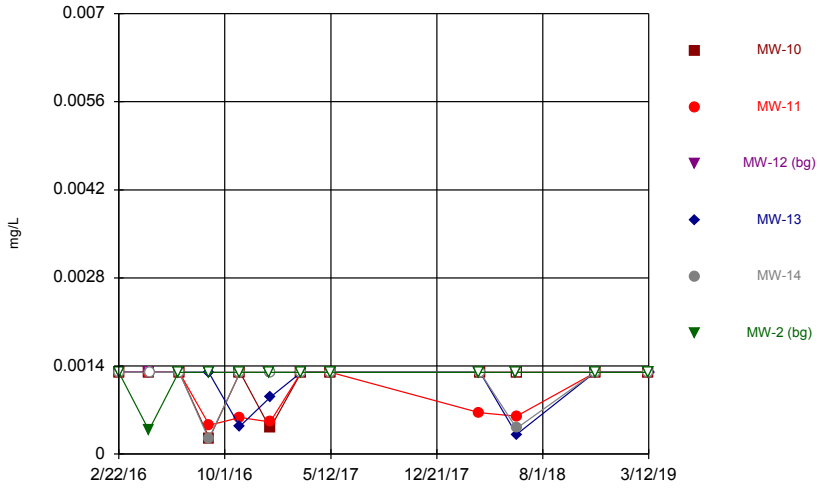
Time Series



Constituent: pH Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

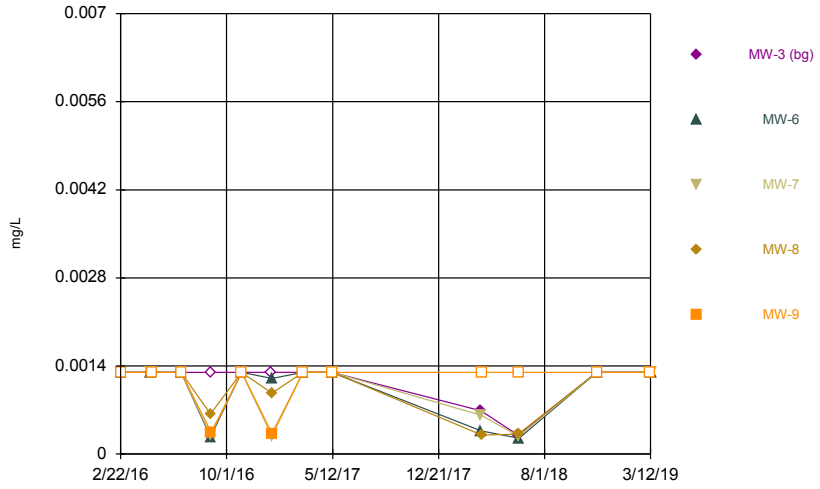
Time Series



Constituent: Selenium Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: pH (SU) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		6.33 (B01)	6.19 (B01)			6.11 (B01)
2/23/2016	5.2 (B01)			7.47 (B01)	6.9 (B01)	
4/25/2016						5.65 (B02)
4/26/2016	5.24 (B02)	6.27 (B02)	5.99 (B02)			
4/27/2016				7.08 (B02)	6.62 (B02)	
6/27/2016			6.04 (B03)			5.35 (B03)
6/28/2016	5.25 (B03)	6.76 (B03)		7.15 (B03)	6.69 (B03)	
8/29/2016			6.01 (B04)	6.97 (B04)	6.65 (B04)	7.06 (B04)
8/30/2016	5.31 (B04)	6.59 (B04)				
11/1/2016			6.03 (B05)			6.65 (B05)
11/2/2016				6.96 (B05)	6.65 (B05)	
11/3/2016	5.07 (B05)	6.54 (B05)				
1/4/2017			6.1 (B06)			6.88 (B06)
1/5/2017	5.3 (B06)	6.5 (B06)		7.02 (B06)	6.7 (B06)	
3/10/2017			6.1 (B07)			6.59 (B07)
3/11/2017	5.24 (B07)	6.32 (B07)		6.97 (B07)	6.63 (B07)	
5/11/2017			5.95 (B08)			6.7 (B08)
5/12/2017	5.12 (B08)	6.61 (B08)		7.21 (B08)	6.66 (B08)	
10/12/2017			5.9			6.66
10/13/2017	5.33	6.73		6.87	6.68	
6/6/2018			6.04			6.47
6/7/2018	5.35	6.39		6.86	6.88	
11/19/2018			6.11	6.99	6.86	6.09
11/20/2018	5.18	6.35				
3/11/2019	5.24	6.24	6.15		6.92	6.03
3/12/2019				6.96		
5/28/2019			6.62			6.29
5/29/2019		6.4		6.96		
5/30/2019	5.06				6.96	

Time Series

Constituent: pH (SU) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	5.09 (B01)				
2/23/2016		5.03 (B01)	6.32 (B01)	5.06 (B01)	4.85 (B01)
4/25/2016	5 (B02)				
4/26/2016		4.68 (B02)	6.36 (B02)		
4/27/2016				4.62 (B02)	5.19 (B02)
6/27/2016	4.94 (B03)				
6/28/2016		4.82 (B03)	6.09 (B03)	3.85 (B03)	5.29 (B03)
8/29/2016	5.17 (B04)	5.94 (B04)	6.27 (B04)	4.75 (B04)	
8/30/2016					5.09 (B04)
11/1/2016	4.91 (B05)				
11/2/2016		5.2 (B05)	6.09 (B05)	4.63 (B05)	
11/3/2016					5.99 (B05)
1/4/2017	4.99 (B06)				
1/5/2017		5.2 (B06)	6.18 (B06)	4.66 (B06)	5.94 (B06)
3/10/2017	5.02 (B07)				
3/11/2017		5.05 (B07)	6.34 (B07)	4.66 (B07)	5.62 (B07)
5/11/2017	4.76 (B08)	4.96 (B08)			
5/12/2017			6.09 (B08)	4.52 (B08)	5.74 (B08)
10/12/2017	4.74	5.37	6.13		
10/13/2017				4.46	4.95
6/6/2018	4.96				
6/7/2018				4.73	6.52
6/8/2018		5.25	6.31		
11/19/2018	4.95	5.26	6.15	3.26	
11/20/2018					6.52
3/11/2019	4.97			4.44	6.69
3/12/2019		5.23	6.14		
5/28/2019	4.73				
5/29/2019		5.38	6.15		
5/30/2019				4.51	6.58

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0013	<0.0013			<0.0013
2/23/2016	<0.0013			<0.0013	<0.0013	
4/25/2016						0.00038 (J)
4/26/2016	<0.0013	<0.0013	<0.0013			
4/27/2016				<0.0013	<0.0013	
6/27/2016			<0.0013			<0.0013
6/28/2016	<0.0013 (*)	<0.0013 (*)		<0.0013	<0.0013 (*)	
8/29/2016			<0.0013	<0.0013	0.00024 (J)	<0.0013
8/30/2016	0.00025 (J)	0.00046 (J)				
11/1/2016			<0.0013			<0.0013
11/2/2016				0.00044 (J)		
11/3/2016	<0.0013	0.00058 (J)			<0.0013	
1/4/2017			<0.0013			<0.0013
1/5/2017	0.00041 (J)	0.00051 (J)		0.0009 (J)	<0.0013	
3/10/2017			<0.0013			<0.0013 (*)
3/11/2017	<0.0013	<0.0013 (*)		<0.0013	<0.0013	
5/11/2017			<0.0013			<0.0013
5/12/2017	<0.0013	<0.0013		<0.0013	<0.0013	
3/20/2018			<0.0013			
3/21/2018		0.00066 (J)				<0.0013
3/22/2018	<0.0013			<0.0013	<0.0013	
6/6/2018			<0.0013			<0.0013
6/7/2018	<0.0013	0.0006 (J)		0.00031 (J)	0.00041 (J)	
11/19/2018			<0.0013	<0.0013	<0.0013	<0.0013
11/20/2018	<0.0013	<0.0013				
3/11/2019	<0.0013	<0.0013	<0.0013		<0.0013	<0.0013
3/12/2019				<0.0013		

Time Series

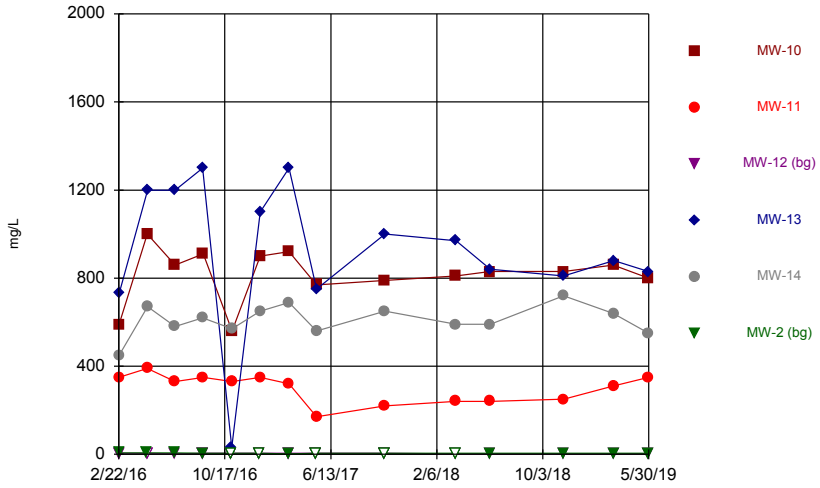
Constituent: Selenium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0013				
2/23/2016		<0.0013	<0.0013	<0.0013	<0.0013
4/25/2016	<0.0013				
4/26/2016		<0.0013	<0.0013		
4/27/2016				<0.0013	<0.0013
6/27/2016	<0.0013				
6/28/2016		<0.0013 (*)	<0.0013 (*)	<0.0013 (*)	<0.0013 (*)
8/29/2016	<0.0013	0.00027 (J)	0.0003 (J)	0.00064 (J)	
8/30/2016					0.00035 (J)
11/1/2016	<0.0013				
11/2/2016		<0.0013	<0.0013	<0.0013	
11/3/2016					<0.0013
1/4/2017	<0.0013				
1/5/2017		0.0012 (J)	0.00028 (J)	0.00097 (J)	0.00033 (J)
3/10/2017	<0.0013				
3/11/2017		<0.0013 (*)	<0.0013	<0.0013	<0.0013
5/11/2017	<0.0013	<0.0013			
5/12/2017			<0.0013	<0.0013	<0.0013
3/20/2018	0.00069 (J)				
3/21/2018		0.00037 (J)	0.00062 (J)		
3/22/2018				0.0003 (J)	
3/23/2018					<0.0013
6/6/2018	0.0003 (J)				
6/7/2018				0.00032 (J)	<0.0013
6/8/2018		0.00025 (J)	0.00028 (J)		
11/19/2018	<0.0013	<0.0013	<0.0013	<0.0013	
11/20/2018					<0.0013
3/11/2019	<0.0013			<0.0013	<0.0013
3/12/2019		<0.0013	<0.0013		

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

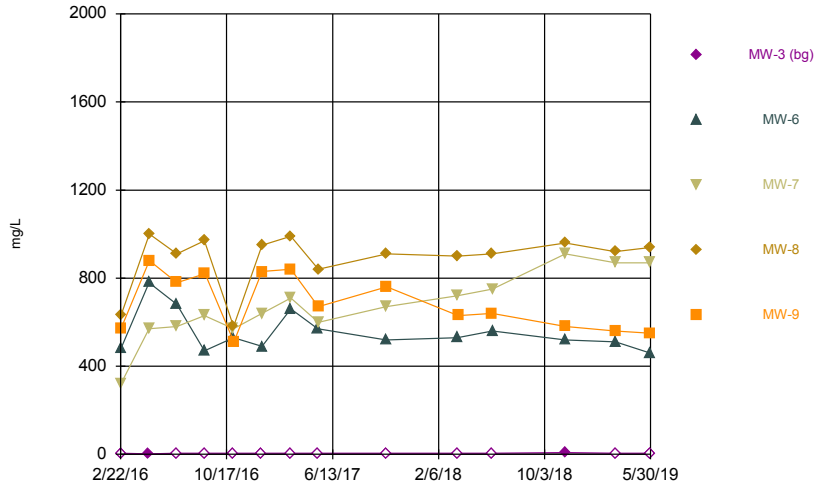
Time Series



Constituent: Sulfate Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

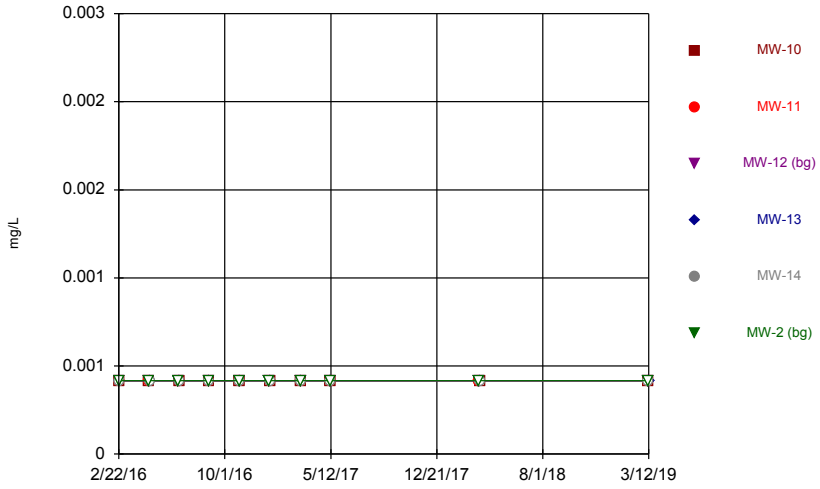
Time Series



Constituent: Sulfate Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

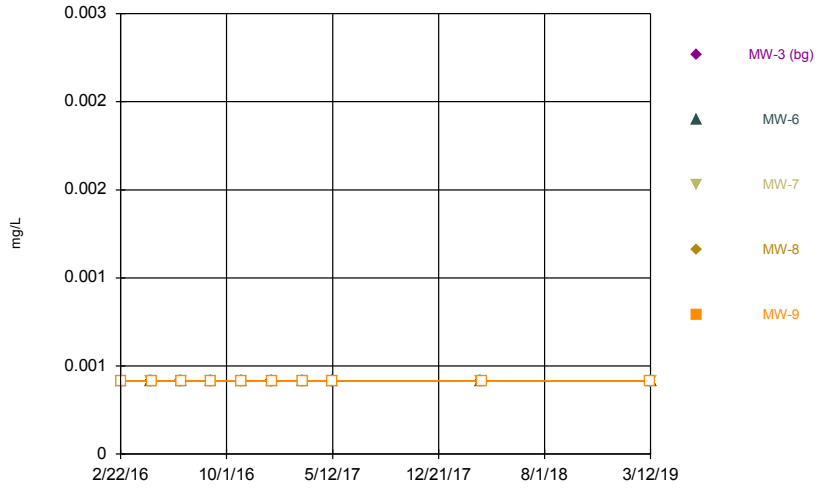
Time Series



Constituent: Thallium Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		350	<5			6.3
2/23/2016	590			730	450	
4/25/2016						6.1
4/26/2016	1000	390	<5			
4/27/2016				1200	670	
6/27/2016			1.6 (J)			6.6
6/28/2016	860	330		1200	580	
8/29/2016			<5	1300	620	4.5 (J)
8/30/2016	910	350				
11/1/2016			<5			<5
11/2/2016				31		
11/3/2016	560	330			570	
1/4/2017			<5			<5 (*)
1/5/2017	900	350		1100	650	
3/10/2017			<5			2.3 (J)
3/11/2017	920	320		1300	690	
5/11/2017			<5			<5
5/12/2017	770	170 (J)		750	560	
10/12/2017			<5			<5
10/13/2017	790	220		1000	650	
3/20/2018			1.8 (J)			
3/21/2018		240				<5
3/22/2018	810			970	590	
6/6/2018			2.3 (J)			4.8 (J)
6/7/2018	830	240		840	590	
11/19/2018			2.2 (J)	810	720	4.4 (J)
11/20/2018	830	250				
3/11/2019	860	310	1.5 (J)		640	5.2
3/12/2019				880		
5/28/2019			3 (J)			4.3 (J)
5/29/2019		350		830		
5/30/2019	800				550	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<5				
2/23/2016		480	320	630	570
4/25/2016	1.4 (J)				
4/26/2016		780	570		
4/27/2016				1000	880
6/27/2016	<5				
6/28/2016		680	580	910	780
8/29/2016	<5	470 (J)	630	970	
8/30/2016					820
11/1/2016	<5				
11/2/2016		530	570	580	
11/3/2016					510
1/4/2017	<5 (*)				
1/5/2017		490	640	950	830
3/10/2017	<5				
3/11/2017		660	710	990	840
5/11/2017	<5	570			
5/12/2017			600	840	670
10/12/2017	<5	520	670		
10/13/2017				910	760
3/20/2018	<5				
3/21/2018		530	720		
3/22/2018				900	
3/23/2018					630
6/6/2018	<5				
6/7/2018				910	640
6/8/2018		560	750		
11/19/2018	7.473 (D)	520	910	960	
11/20/2018					580
3/11/2019	<5			920	560
3/12/2019		510	870		
5/28/2019	<5				
5/29/2019		460	870		
5/30/2019				940	550

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		<0.0005	<0.0005			<0.0005
2/23/2016	<0.0005			<0.0005	<0.0005	
4/25/2016						<0.0005
4/26/2016	<0.0005	<0.0005	<0.0005			
4/27/2016				<0.0005	<0.0005	
6/27/2016			<0.0005			<0.0005
6/28/2016	<0.0005	<0.0005		<0.0005	<0.0005	
8/29/2016			<0.0005	<0.0005	<0.0005	<0.0005
8/30/2016	<0.0005	<0.0005				
11/1/2016			<0.0005			<0.0005
11/2/2016				<0.0005		
11/3/2016	<0.0005	<0.0005			<0.0005	
1/4/2017			<0.0005			<0.0005
1/5/2017	<0.0005	<0.0005		<0.0005	<0.0005	
3/10/2017			<0.0005			<0.0005
3/11/2017	<0.0005	<0.0005		<0.0005	<0.0005	
5/11/2017			<0.0005			<0.0005
5/12/2017	<0.0005	<0.0005		<0.0005	<0.0005	
3/20/2018			<0.0005			
3/21/2018		<0.0005				<0.0005
3/22/2018	<0.0005			<0.0005	<0.0005	
3/11/2019	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005
3/12/2019				<0.0005		

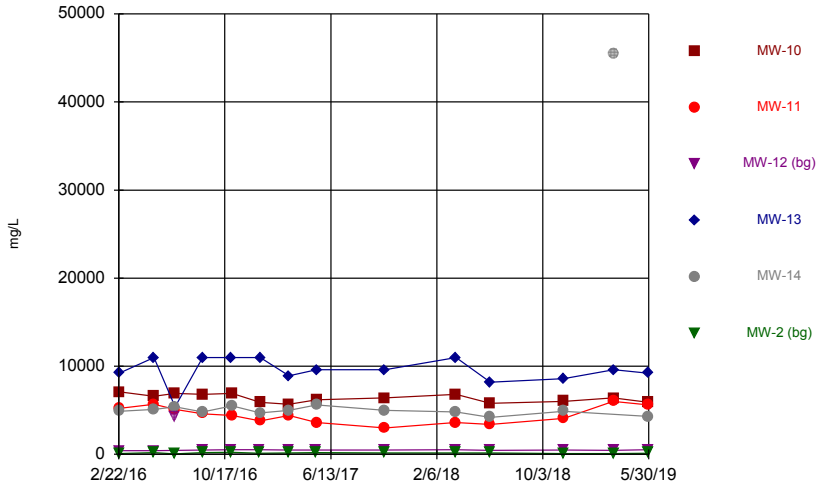
Time Series

Constituent: Thallium (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	<0.0005				
2/23/2016		<0.0005	<0.0005	<0.0005	<0.0005
4/25/2016	<0.0005				
4/26/2016		<0.0005	<0.0005		
4/27/2016				<0.0005	<0.0005
6/27/2016	<0.0005				
6/28/2016		<0.0005	<0.0005	<0.0005	<0.0005
8/29/2016	<0.0005	<0.0005	<0.0005	<0.0005	
8/30/2016					<0.0005
11/1/2016	<0.0005				
11/2/2016		<0.0005	<0.0005	<0.0005	
11/3/2016					<0.0005
1/4/2017	<0.0005				
1/5/2017		<0.0005	<0.0005	<0.0005	<0.0005
3/10/2017	<0.0005				
3/11/2017		<0.0005	<0.0005	<0.0005	<0.0005
5/11/2017	<0.0005	<0.0005			
5/12/2017			<0.0005	<0.0005	<0.0005
3/20/2018	<0.0005				
3/21/2018		<0.0005	<0.0005		
3/22/2018				<0.0005	
3/23/2018					<0.0005
3/11/2019	<0.0005			<0.0005	<0.0005
3/12/2019		<0.0005	<0.0005		

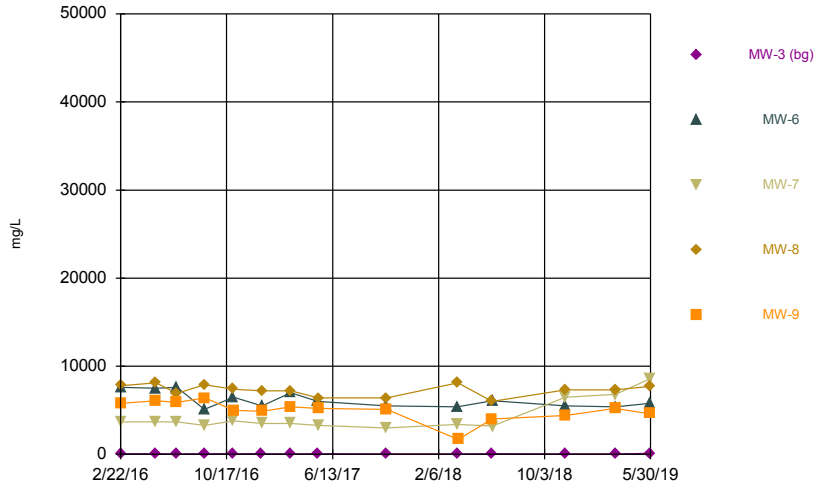
Time Series



Constituent: Total Dissolved Solids Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/15/2019 9:24 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-10	MW-11	MW-12 (bg)	MW-13	MW-14	MW-2 (bg)
2/22/2016		5200	410			74
2/23/2016	7100			9200	4900	
5/11/2016	6600	5700	410	11000		200
5/12/2016					5100	
6/27/2016			4200 (o)			42
6/28/2016	6900	5100		5400	5400	
8/29/2016			490	11000	4800	200
8/30/2016	6800	4600				
11/1/2016			540			220
11/2/2016				11000		
11/3/2016	6900	4400			5500	
1/4/2017			520			140
1/5/2017	5900	3800		11000	4700	
3/10/2017			490			160
3/11/2017	5700	4400		8900	5000	
5/11/2017			490			190
5/12/2017	6200	3600		9600	5600	
10/12/2017			470			150
10/13/2017	6400	3000		9600	5000	
3/20/2018			510			
3/21/2018		3600				150
3/22/2018	6800			11000	4800	
6/6/2018			460			160
6/7/2018	5800	3400		8200	4200	
11/19/2018			490	8600	4900	88 (D)
11/20/2018	6000	4100				
3/11/2019	6400	6000	440		45500 (oD)	72
3/12/2019				9600		
5/28/2019			540			140
5/29/2019		5600		9200		
5/30/2019	5900				4300	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/15/2019 9:24 AM View: App III & IV

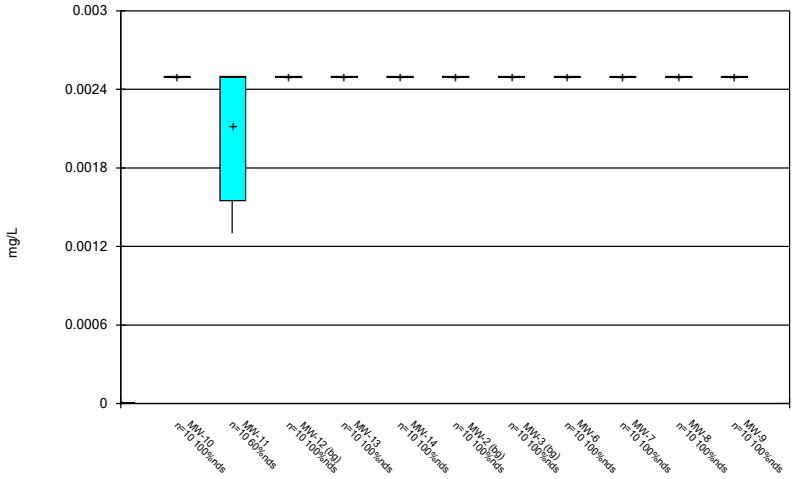
Plant Smith Client: Geosyntec Data: Plant Smith CCR

	MW-3 (bg)	MW-6	MW-7	MW-8	MW-9
2/22/2016	46				
2/23/2016		7600	3700	7800	5800
5/11/2016	42	7500	3700		
5/12/2016				8100	6100
6/27/2016	24				
6/28/2016		7600	3700	6900	5900
8/29/2016	42	5100	3300	7900	
8/30/2016					6400
11/1/2016	64				
11/2/2016		6500	3800	7400	
11/3/2016					5000
1/4/2017	44				
1/5/2017		5500	3500	7200	4900
3/10/2017	16				
3/11/2017		7000	3500	7200	5400
5/11/2017	42	6000			
5/12/2017			3300	6400	5200
10/12/2017	30	5500	3000		
10/13/2017				6400	5100
3/20/2018	12				
3/21/2018		5400	3400		
3/22/2018				8100	
3/23/2018					1700
6/6/2018	46				
6/7/2018				6000	4000
6/8/2018		6100	3200		
11/19/2018	22	5500	6500	7300	
11/20/2018					4400
3/11/2019	12			7300	5200
3/12/2019		5400	6800		
5/28/2019	110				
5/29/2019		5800	8600		
5/30/2019				7700	4600

Box Plots

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

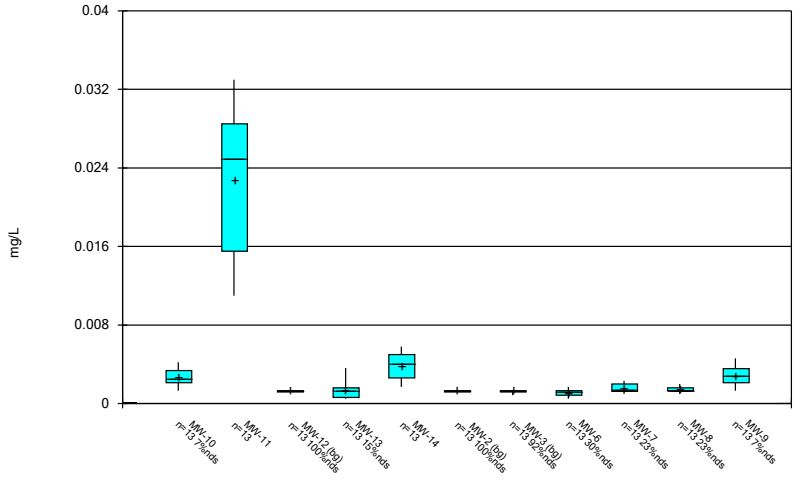
Box & Whiskers Plot



Constituent: Antimony Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

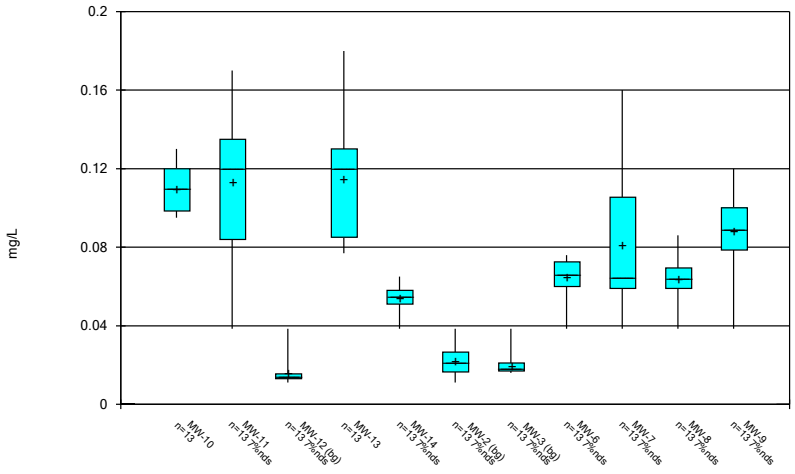
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

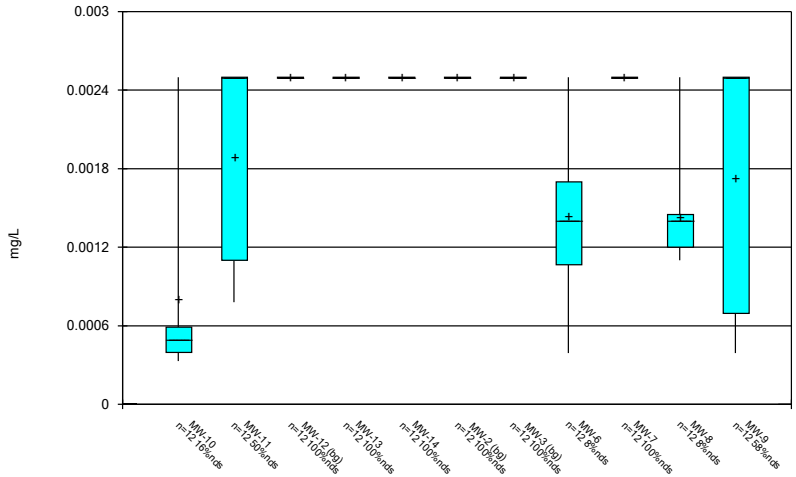
Box & Whiskers Plot



Constituent: Barium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

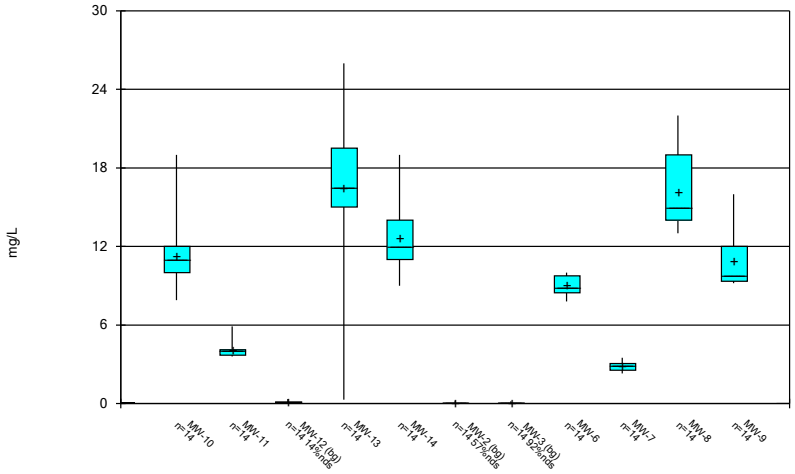
Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Box & Whiskers Plot



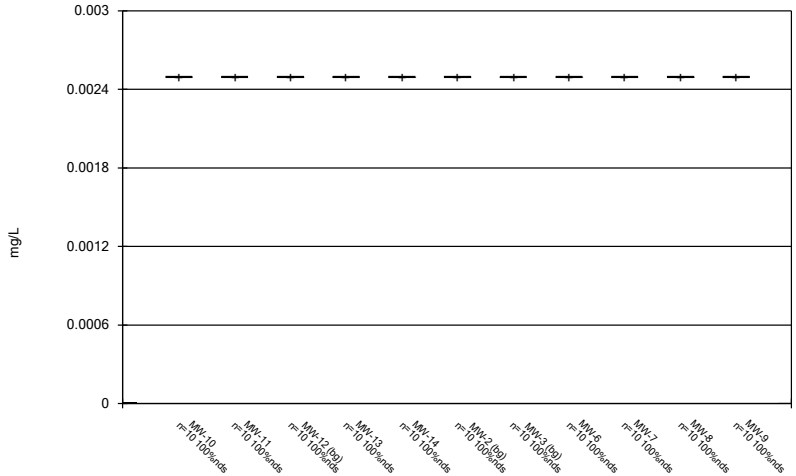
Constituent: Beryllium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



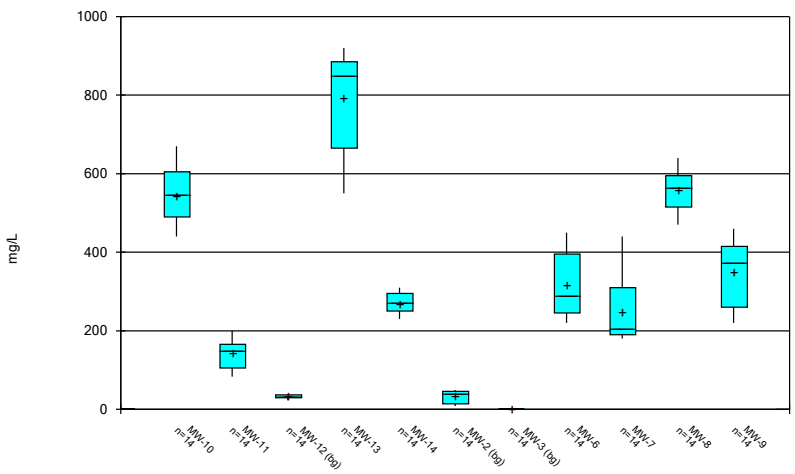
Constituent: Boron Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



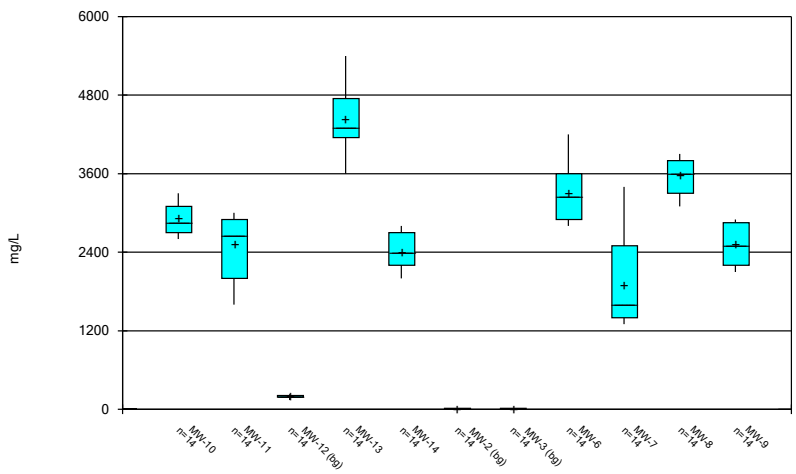
Constituent: Cadmium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



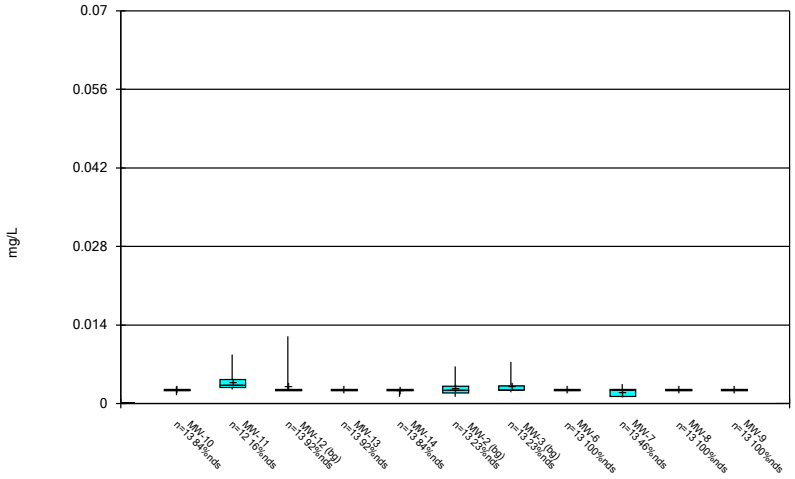
Constituent: Calcium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



Constituent: Chloride Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

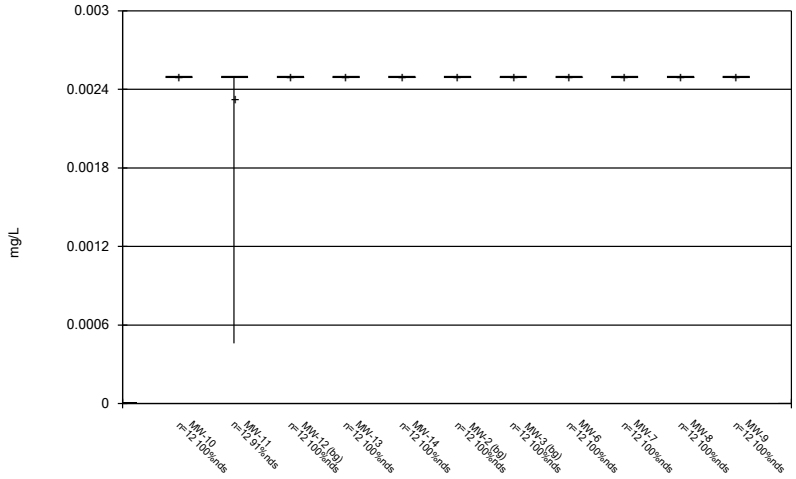
Box & Whiskers Plot



Constituent: Chromium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

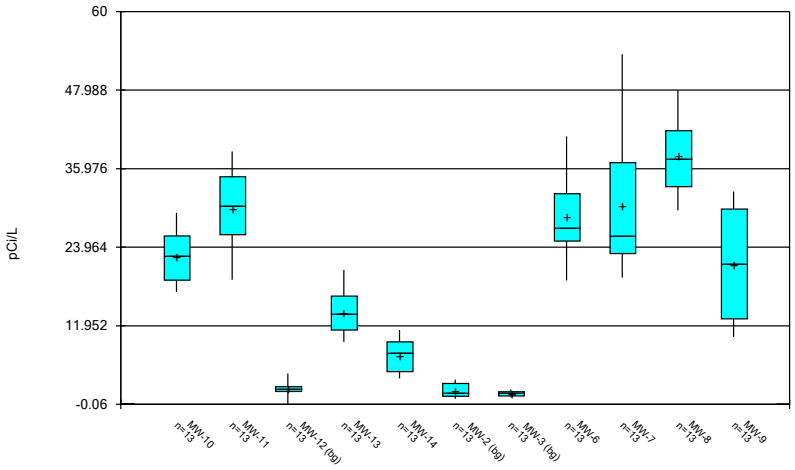
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

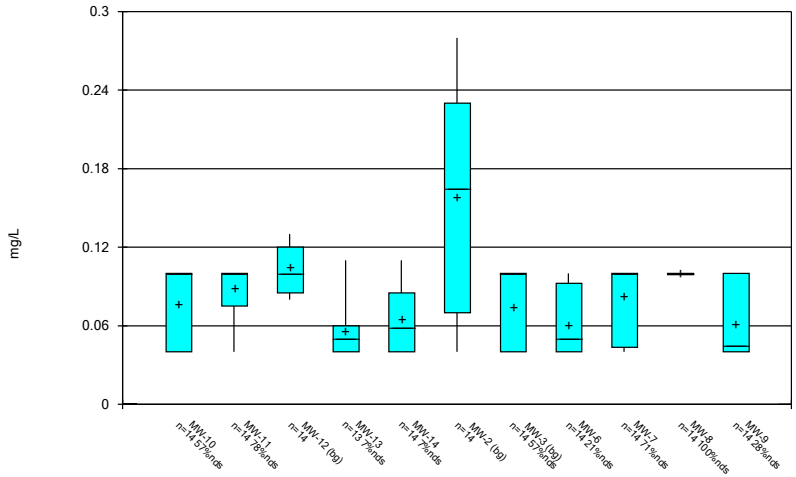
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

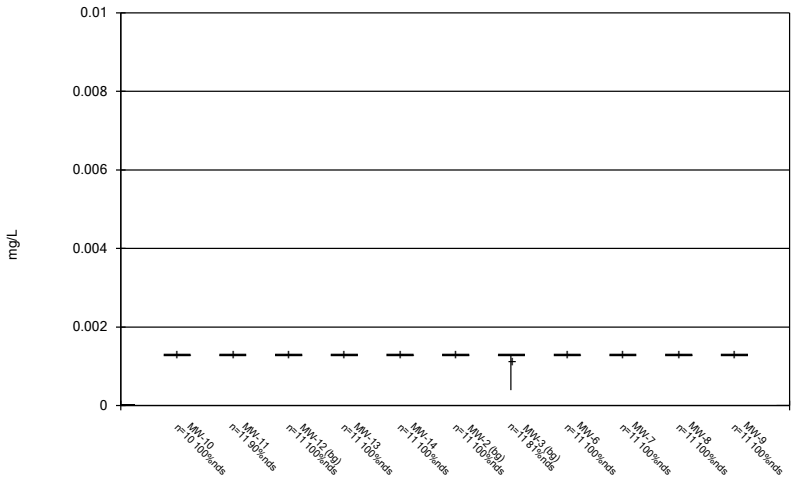
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

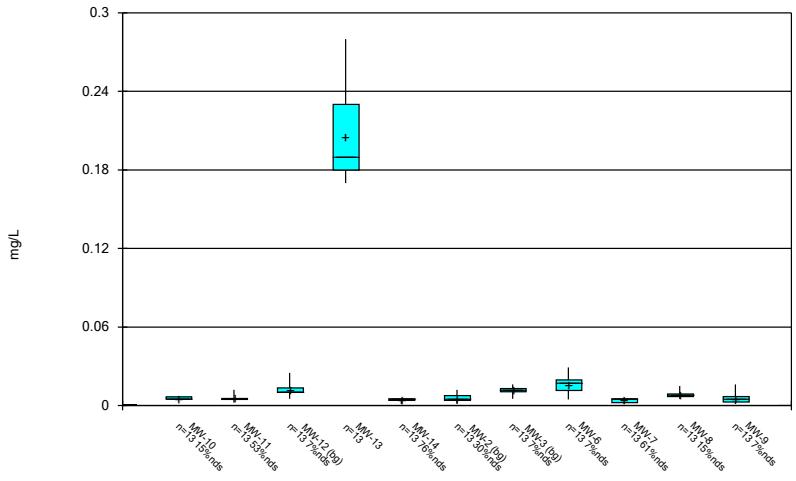
Box & Whiskers Plot



Constituent: Lead Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

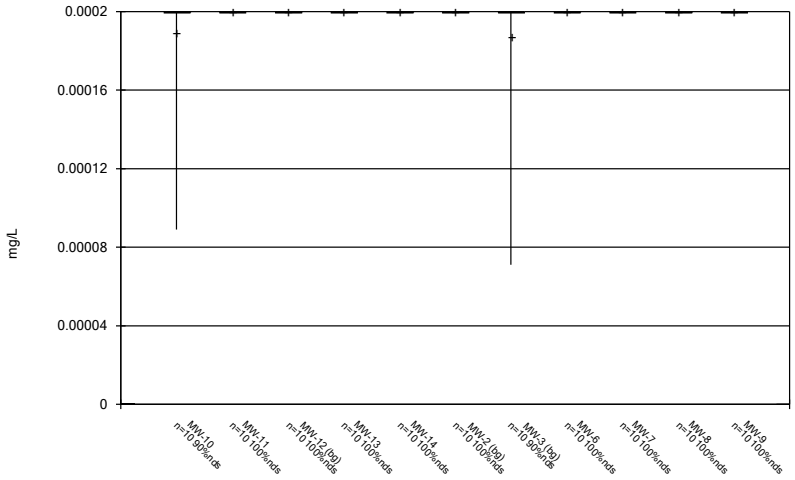
Box & Whiskers Plot



Constituent: Lithium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

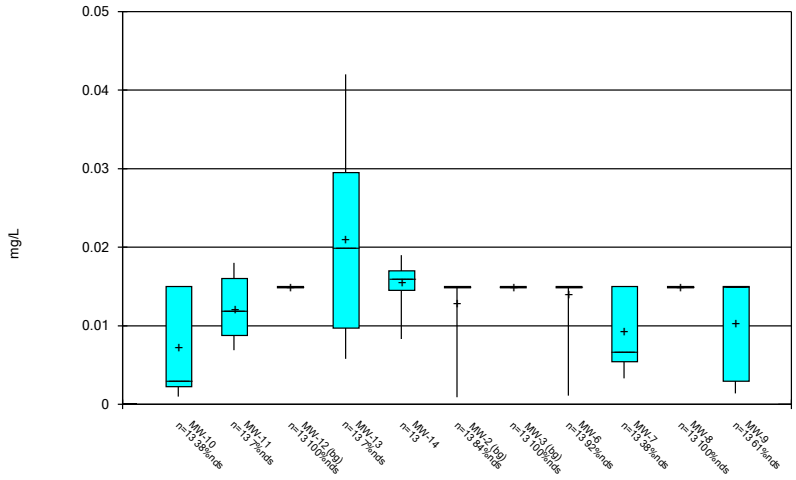
Box & Whiskers Plot



Constituent: Mercury Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

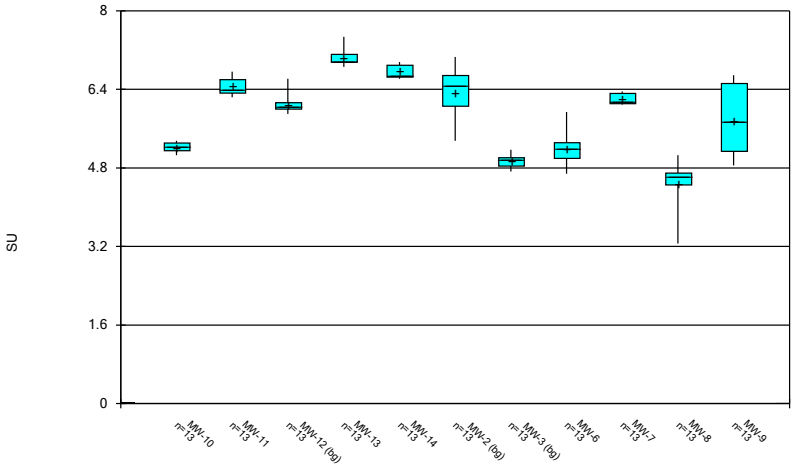
Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Box & Whiskers Plot



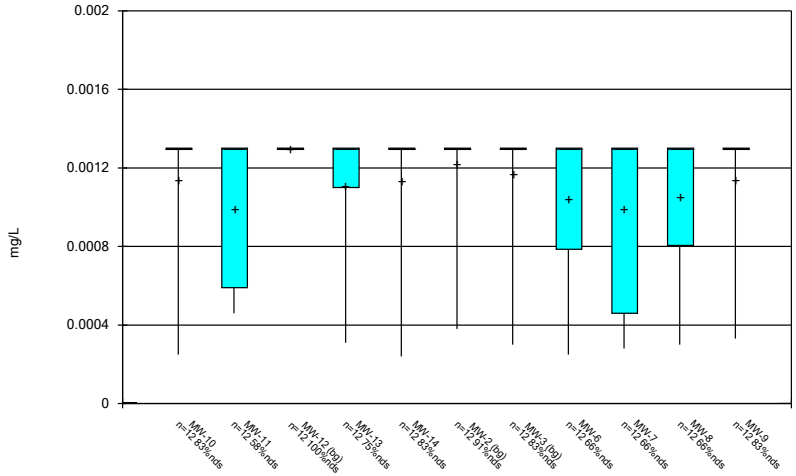
Constituent: Molybdenum Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



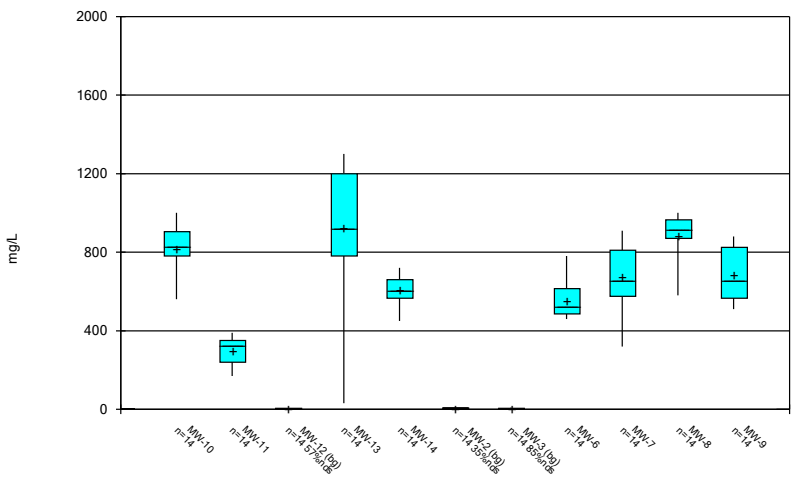
Constituent: pH Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



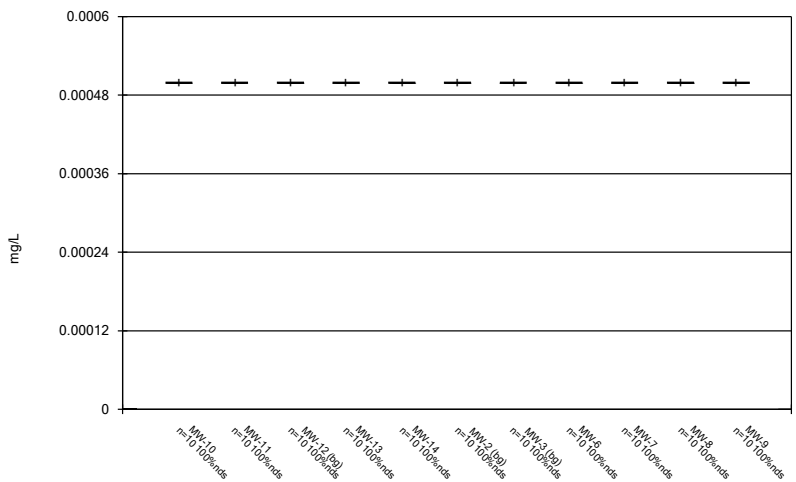
Constituent: Selenium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



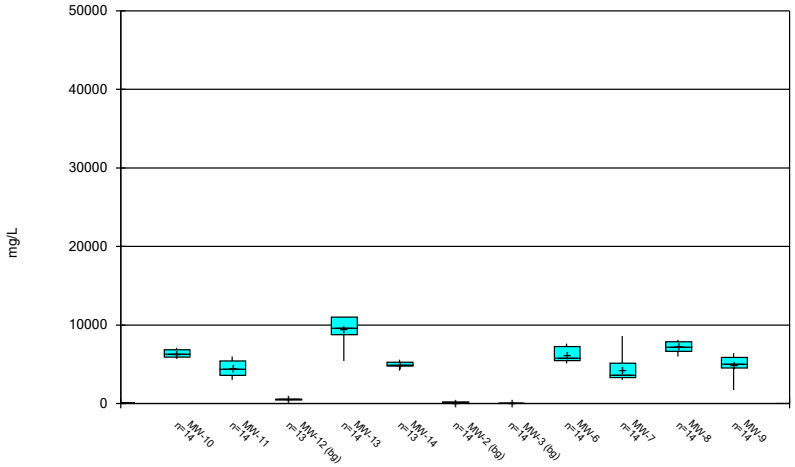
Constituent: Sulfate Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/15/2019 9:27 AM View: App III & IV
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/15/2019 9:27 AM View: App III & IV

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Mann Whitney Test

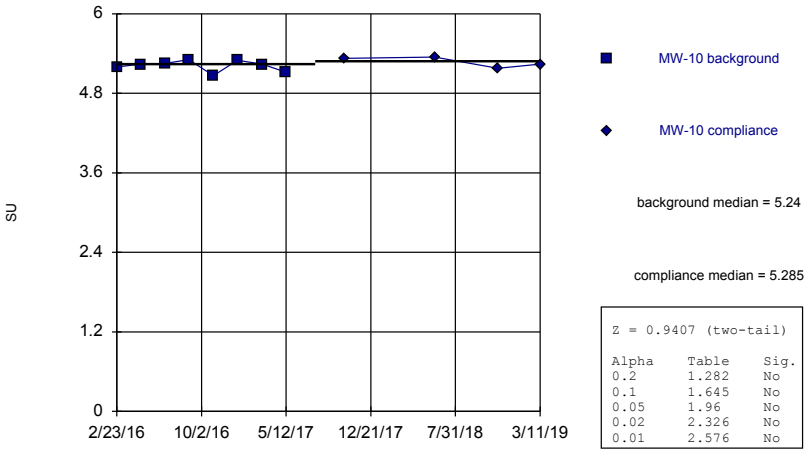
Welch's t-test/Mann-Whitney - All Results

Plant Smith Client: Geosyntec Data: Plant Smith CCR Printed 10/18/2019, 4:24 PM

Constituent	Well	Calc.	0.01	Method
pH (SU)	MW-10	0.9407	No	Mann-W
pH (SU)	MW-11	-0.5944	No	Mann-W
pH (SU)	MW-12 (bg)	0.3409	No	Mann-W
pH (SU)	MW-13	-2.216	No	Mann-W
pH (SU)	MW-14	1.786	No	Mann-W
pH (SU)	MW-2 (bg)	-0.7643	No	Mann-W
pH (SU)	MW-3 (bg)	-1.274	No	Mann-W
pH (SU)	MW-6	1.957	No	Mann-W
pH (SU)	MW-7	-0.4276	No	Mann-W
pH (SU)	MW-8	-1.446	No	Mann-W
pH (SU)	MW-9	1.446	No	Mann-W

Mann-Whitney (Wilcoxon Rank Sum)

MW-10



Z = 0.9407 (two-tail)

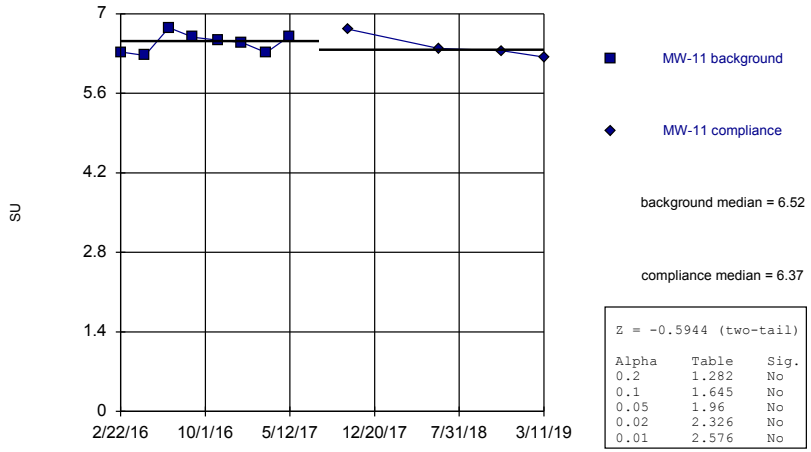
Alpha	Table	Sig.
0.2	1.282	No
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-11



Z = -0.5944 (two-tail)

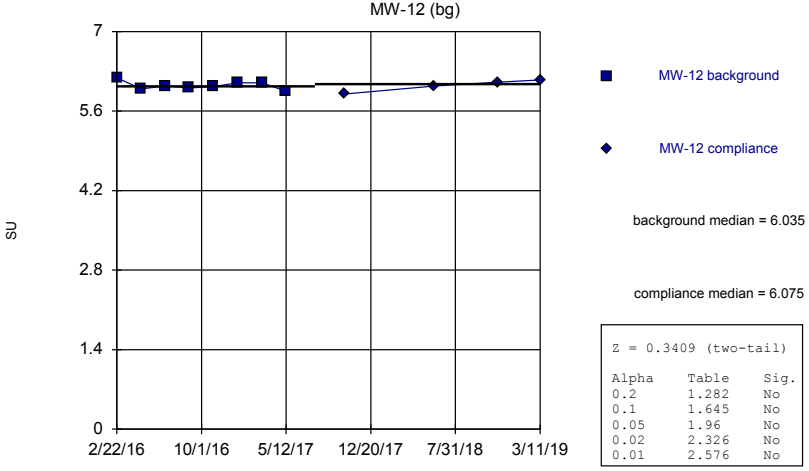
Alpha	Table	Sig.
0.2	1.282	No
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-12 (bg)



Z = 0.3409 (two-tail)

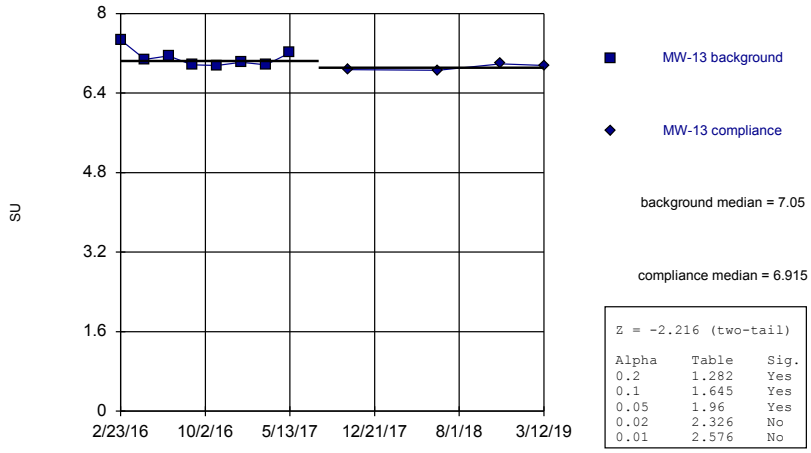
Alpha	Table	Sig.
0.2	1.282	No
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-13



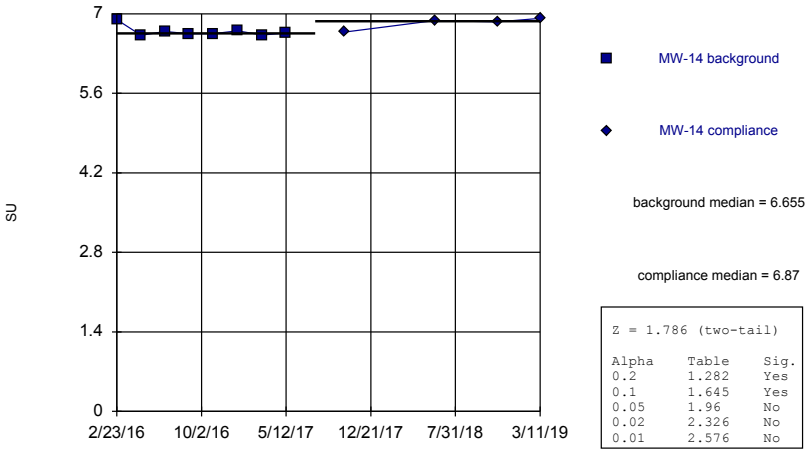
Z = -2.216 (two-tail)

Alpha	Table	Sig.
0.2	1.282	Yes
0.1	1.645	Yes
0.05	1.96	Yes
0.02	2.326	No
0.01	2.576	No

Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell
Plant Smith Client: Geosyntec Data: Plant Smith CCR

Mann-Whitney (Wilcoxon Rank Sum)

MW-14



background median = 6.655

compliance median = 6.87

Z = 1.786 (two-tail)

Alpha	Table	Sig.
0.2	1.282	Yes
0.1	1.645	Yes
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

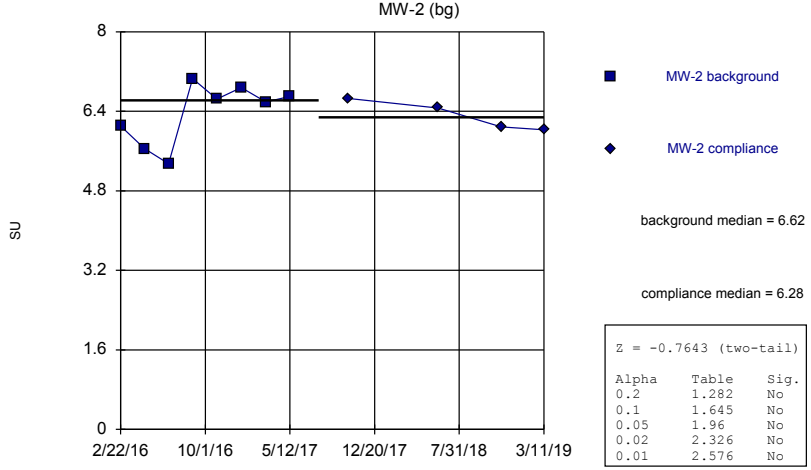
Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-2 (bg)



background median = 6.62

compliance median = 6.28

Z = -0.7643 (two-tail)

Alpha	Table	Sig.
0.2	1.282	No
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

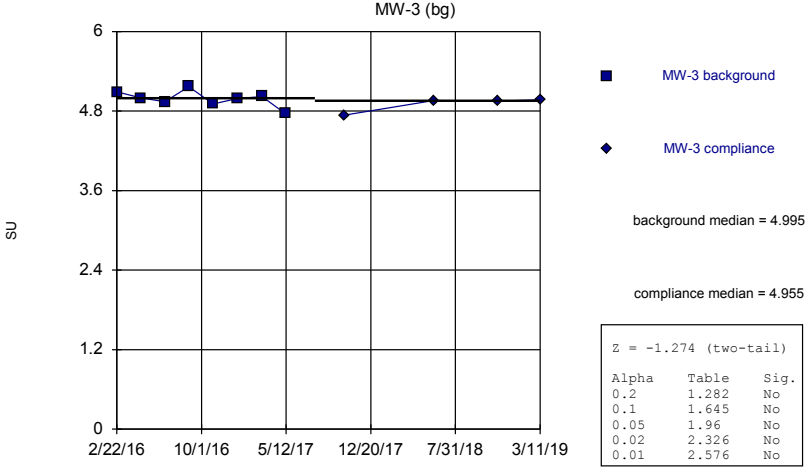
Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-3 (bg)



background median = 4.995

compliance median = 4.955

Z = -1.274 (two-tail)

Alpha	Table	Sig.
0.2	1.282	No
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

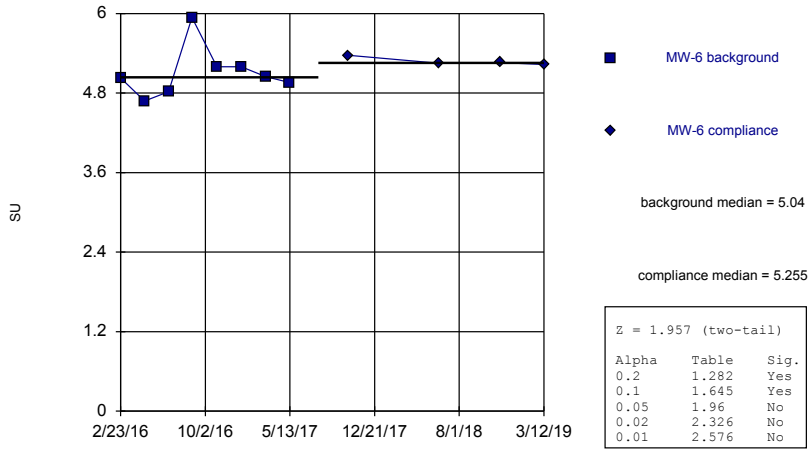
Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-6



background median = 5.04

compliance median = 5.255

Z = 1.957 (two-tail)

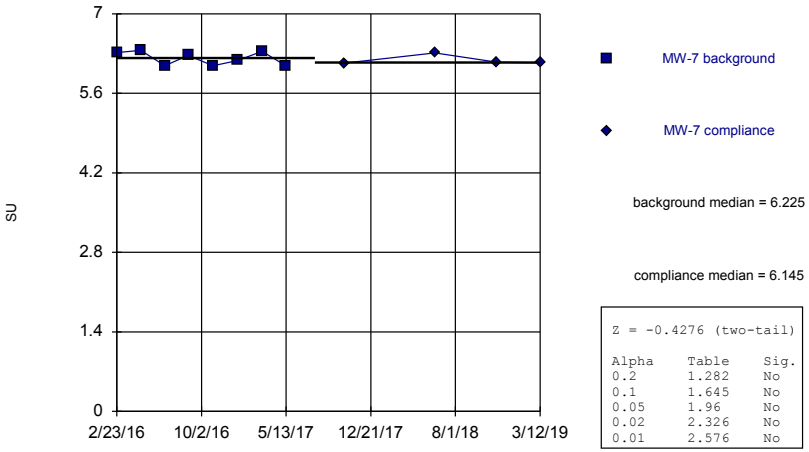
Alpha	Table	Sig.
0.2	1.282	Yes
0.1	1.645	Yes
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Mann-Whitney (Wilcoxon Rank Sum)

MW-7



background median = 6.225

compliance median = 6.145

Z = -0.4276 (two-tail)

Alpha	Table	Sig.
0.2	1.282	No
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

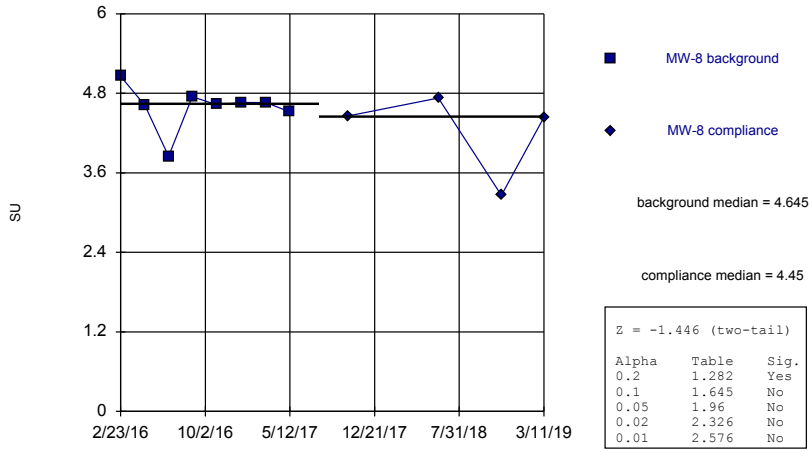
Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-8



background median = 4.645

compliance median = 4.45

Z = -1.446 (two-tail)

Alpha	Table	Sig.
0.2	1.282	Yes
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

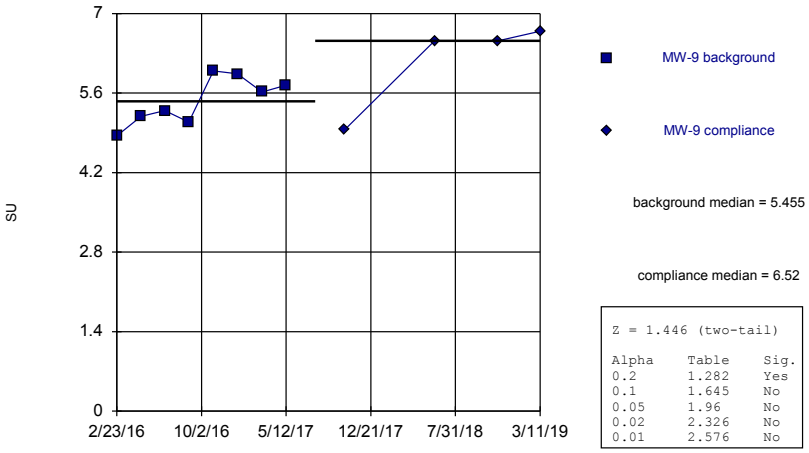
Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

Sanitas™ v.9.6.23 Groundwater Stats Consulting. UG

Mann-Whitney (Wilcoxon Rank Sum)

MW-9



background median = 5.455

compliance median = 6.52

Z = 1.446 (two-tail)

Alpha	Table	Sig.
0.2	1.282	Yes
0.1	1.645	No
0.05	1.96	No
0.02	2.326	No
0.01	2.576	No

Constituent: pH Analysis Run 10/18/2019 4:23 PM View: Intrawell

Plant Smith Client: Geosyntec Data: Plant Smith CCR

APPENDIX D

ACM Extension Demonstration

Geosyntec consultants

1120 North 12th Avenue
Pensacola, Florida 32501

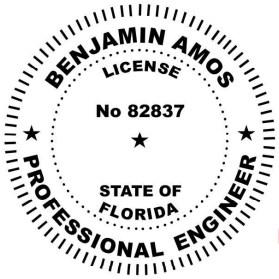
ASSESSMENT OF CORRECTIVE MEASURES
DEADLINE EXTENSION DEMONSTRATION
40 CFR §257.96(a)
PLANT SMITH ASH POND
GULF POWER COMPANY

Pursuant to 40 CFR §257.96(a), Gulf Power Company requires additional time to complete the Assessment of Corrective Measures (ACM) for the Plant Smith Ash Pond due to site-specific conditions and circumstances. In accordance with 40 CFR §257.96(a), submittal of the ACM will occur by 12 June 2019.

The 60 day extension is required since nature and extent characterization activities, consistent with 40 CFR §257.95(g), are on-going at the Plant Smith Ash Pond. For example, additional time is required to receive and evaluate monitoring and potentiometric data from recently installed wells/piezometers at Plant Smith. Results for the on-going characterization activities are anticipated to affect evaluation of corrective measures considered in the ACM.

CERTIFICATION

I, Benjamin K. Amos, being a Registered Professional Engineer licensed in the State of Florida where the CCR unit is located, do hereby certify to the best of my knowledge, information, and belief, that the information provided above is accurate.



This document has been electronically signed and sealed by Benjamin Amos P.E. on 12 April 2019 using a SHA-1 authentication code. Printed copies of this document are not considered signed and sealed, and the SHA-1 authentication code must be verified on any electronic copies.
2019.04.12 09:37:27 -04'00'

Benjamin K. Amos, Ph.D., P.E.
Florida Professional Engineer No. 82837

Date