2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GULF POWER COMPANY - PLANT CRIST

ASH LANDFILL NO. 1, ASH LANDFILL NO. 2, AND GYPSUM STORAGE AREA

January 31, 2018

Prepared For:

Gulf Power

Prepared By:

Southern Company

CERTIFICATION STATEMENT

This 2017 *Annual Groundwater Monitoring and Corrective Action Report, Gulf Power Company - Plant Crist – Ash Landfill No. 1, Ash Landfill No. 2, and Gypsum Storage Area* has been prepared to comply with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D) under the supervision of a licensed Professional Engineer and Professional Geologist with Southern Company Services.

GREGORY T. WHETSTONE LICENSE No. 69000 STATE OF FLORIDA PROFESSIONAL ENGINEER

Gregory T. Whetstone, P.E.
Florida Professional Engineer No. 69000

1/31/18
Date

LAUREN PETTY LICENSE No. PG2875 STATE OF FLORIDA PROFESSIONAL GEOLOGIST

Lauren Petty, P.G.
Florida Professional Geologist No. 2875

1/31/2018
Date

EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D), this *2017 Annual Groundwater Monitoring and Corrective Action Report* documents the activities completed to establish the groundwater monitoring program and actions through 2017 conducted at Gulf Power Company's (Gulf Power) Plant Crist (Site) for the three permitted CCR units at the Site: (1) Ash Landfill No. 1 (LF1), (2) Ash Landfill No. 2 (LF2), and (3) Gypsum Storage Area (GSA).

Gulf Power installed and certified a groundwater detection monitoring system around each of the three CCR units to monitor groundwater within the uppermost aquifer at the Site. Monitoring well networks were installed at the waste boundary of each CCR disposal unit. Monitoring wells in the certified groundwater detection monitoring network are listed below.

- Upgradient: MW-100, MW-101, MW-107, MW-108, MW-306, and MW-307;
- LF1: MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, and MW-110;
- LF2: MW-300, MW-303, MW-304, MW-305, and MW-308; and
- GSA: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205 and MW-206.

Eight independent background samples were collected and analyzed for Appendix III and IV constituents from wells in the certified monitoring network between February 2016 and May 2017. An initial detection monitoring event was conducted from October 2 to 6, 2017. Samples were analyzed for Appendix III constituents.

Analytical data from the initial detection monitoring event in October 2017 were statistically analyzed in accordance with the PE-certified *Statistical Analysis Plan* (Groundwater Stats Consulting, LLC, 2017). Following completion of initial statistical analysis, wells and parameters exhibiting exceedances were resampled in December 2017 to verify the initial statistically significant increases (SSIs) in accordance with the 1-of-2 verification resample plan. Based on the analysis of data, it was determined that resampled data confirmed initial SSIs, except for the following: boron at well MW-202, fluoride at wells MW-206 and MW-308; and total dissolved solids (TDS) at well MW-205. The following SSIs were observed:

LF 1

- Boron: MW-103, MW-104, MW-105, and MW-110
- Calcium: MW-103, MW-104, MW-105, MW-109, and MW-110
- Chloride: MW-103, MW-104, MW-105, and MW-110
- Fluoride: MW-104
- Sulfate: MW-103, MW-104, MW-105, MW-109, and MW-110
- TDS: MW-103, MW-104, MW-105, and MW-110
- pH: MW-104

LF 2

- Boron: MW-303, MW-304, and MW-308
- Calcium: MW-303, MW-304, and MW-308
- Chloride: MW-300, MW-303, MW-304, and MW-308

- Fluoride: MW-303
- Sulfate: MW-303, MW-304, and MW-308
- TDS: MW-303, MW-304, and MW-308
- pH: MW-304 and MW-308

GSA

- Boron: MW-200, MW-201, MW-203, MW-204, and MW-206
- Calcium: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, and MW-206
- Chloride: MW-200, MW-201, MW-202, MW-203, MW-204, and MW-206
- Fluoride: MW-201 and MW-204
- Sulfate: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, and MW-206
- TDS: MW-200, MW-201, MW-202, MW-203, MW-204, and MW-206

Routine groundwater monitoring performed pursuant to Gulf Power's Industrial Wastewater Facility Permit No. FL0002275 detected elevated levels of certain groundwater constituents in the vicinity of and downgradient of the GSA. Further investigation indicated that the elevated levels were potentially consistent with an unpermitted discharge from GSA-related infrastructure (e.g., the piping system). Gulf Power reported the elevated levels to the Florida Department of Environmental Protection (FDEP) and entered into Consent Order OGC No. 16-1250 (the Consent Order) on September 13, 2016. Pursuant to the Consent Order, Gulf Power investigated the piping systems and equipment at the GSA and implemented appropriate corrective action. Gulf Power also installed a groundwater pump and treat system designed to promote the removal of groundwater impacts. Groundwater is currently extracted, treated onsite, and disposed of through permitted deep injection wells.

Statistical evaluations of the groundwater monitoring data for the Site identified SSIs of Appendix III groundwater monitoring parameters above background. In accordance with 40 CFR §257.94(e), Gulf Power will conduct an alternate source demonstration and/or initiate an assessment monitoring program. Additionally, Gulf Power will continue to operate the groundwater pump and treat system, which is designed to promote the removal of impacted groundwater.

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

Table of Contents

EXECUTIVE SUMMARY ES-1
1.0 INTRODUCTION 1
1.1 Regional Geology & Hydrogeologic Setting 1
1.2 Groundwater Monitoring Systems and CCR Unit Descriptions 2
1.3 Groundwater Corrective Action 2
2.0 GROUNDWATER MONITORING ACTIVITIES 3
2.1 Monitoring Well Installation and Maintenance 3
2.2 Background Monitoring 3
2.3 Initial Detection Monitoring 3
3.0 SAMPLE METHODOLOGY & ANALYSES 4
3.1 Groundwater Elevation Measurement 4
3.2 Groundwater Sampling 4
3.3 Laboratory Analyses 4
3.4 Quality Assurance & Quality Control Summary 4
4.0 STATISTICAL ANALYSIS 6
4.1 Statistical Method 6
4.2 Statistical Analyses Results 6
4.3 Appendix IV Background Data 8
5.0 MONITORING PROGRAM STATUS 9
6.0 CONCLUSIONS & FUTURE ACTIONS 10
7.0 REFERENCES 11

Tables

Table 1 Monitoring Well Network Summary
Table 2 Groundwater Sampling Event Summary
Table 3 Summary of Groundwater Analytical Data - October 2017
Table 4 Summary of Groundwater Elevations

Figures

Figure 1 Site Location Map
Figure 2 Well Location Map
Figure 3 Potentiometric Surface Contour Map – October 2017

List of Appendices

Appendix A Laboratory Analytical and Field Sampling Reports
Appendix B Statistical Analyses

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D), this *2017 Annual Groundwater Monitoring and Corrective Action Report* documents the 2017 groundwater monitoring activities conducted at Gulf Power Company's (Gulf Power) Plant Crist (Site) for the three permitted CCR units at the Site: (1) Ash Landfill No. 1 (LF1), (2) Ash Landfill No. 2 (LF2), and (3) Gypsum Storage Area (GSA).

The Site is located at 11999 Pate Street in Pensacola, Escambia County, Florida, and is situated on approximately 670 acres. A Site location map is provided in Figure 1. Site topography ranges from approximately 120 feet (ft) relative to the North American Datum of 1988 (NAVD) on the western portions of the Site and along Pate Street to approximately 5 ft NAVD near Clear Creek to the north and Governor's Bayou to the east. LF1 and LF2 are located on the western portion of the property and the GSA is located on the eastern portion of the property near Governor's Bayou. Semi-annual monitoring and reporting for the three CCR units is performed in accordance with the monitoring requirements of 40 CFR §257.90 through §257.94.

This report documents the activities completed to establish the groundwater monitoring program including monitoring well installation, background sampling, and actions through the 2017 calendar year in accordance with 40 CFR §257.90(e).

1.1 Regional Geology & Hydrogeologic Setting

The Sand and Gravel Aquifer includes the Pleistocene terrace deposits, the Pleistocene Citronelle Formation, and the upper portion of the Pliocene/Miocene coarse clastics. The Sand and Gravel Aquifer to be subdivided into three major zones: (i) the surficial zone; (ii) the low permeability zone; and (iii) the main producing zone (Roaza et al., 1991).

The surficial zone consists of the upper most layer of sand and gravel, although layers of silt and clay may also occur within this zone. Beneath the surficial zone is the low permeability zone. The low permeability zone is the first substantial, more regionally continuous lower permeability layer encountered within the Sand and Gravel Aquifer (Roaza et al., 1991). This layer generally consists of a poorly sorted mixture of sand, silt, and clay, although actual lithology is variable. As a semi-confining interval, the low permeability zone limits vertical groundwater flow between the surficial zone above and the main producing zone below (Roaza et al., 1991). The main producing zone is lithologically similar to the surficial zone with moderate to well sorted quartz sands and gravels with interbedded layers of sandy clay and clay. Groundwater in the main producing zone is under semi-confined conditions due to the nature of the low permeability zone that lies above and a regionally extensive confining unit that lies underneath (Richards, 2001).

The Sand and Gravel Aquifer underlies the Site (Barraclough and Marsh, 1962). Site-specific lithology in the uppermost aquifer consists primarily of silty or clayey sands interbedded with well-graded sands and gravels. Groundwater in the uppermost aquifer at the Site is encountered within the Sand and Gravel Aquifer generally between 15 and 4 ft NAVD in a laterally-extensive water-bearing zone of fine to coarse sand. This unit is considered the uppermost aquifer for groundwater monitoring purposes. Monitoring wells were screened in the uppermost aquifer between approximately 11 and -28 ft NAVD.

1.2 Groundwater Monitoring Systems and CCR Unit Descriptions

Pursuant to 40 CFR §257.91, Gulf Power installed and certified groundwater detection monitoring systems around LF1, LF2, and the GSA to monitor groundwater within the uppermost aquifer at the Site. Upgradient monitoring wells were installed to establish Site-wide background water quality. Monitoring well networks were installed at the waste boundary of each CCR disposal unit. Monitoring wells in the certified groundwater detection monitoring network are listed below.

- Upgradient: MW-100, MW-101, MW-107, MW-108, MW-306, and MW-307;
- LF1: MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, and MW-110;
- LF2: MW-300, MW-303, MW-304, MW-305, and MW-308; and
- GSA: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205 and MW-206.

A brief description of each CCR unit is provided below.

- LF1 is an active, dry ash landfill occupying approximately 57.3 acres. Dry fly ash is conveyed and stacked in LF1.

- LF2 is an active, bottom ash and interim landfill occupying approximately 15.2 acres. Dry bottom ash is conveyed and stacked in LF2.

- GSA is an active, gypsum storage pond occupying approximately 14.3 acres. The pond bottom is constructed of an engineered composite liner including 60-mil high-density polyethelene (HDPE) underlain by a geosynthetic liner. Gypsum, process water, and stormwater are conveyed to the GSA. Decant water from the GSA is managed through gravity feed pipes to two ancillary ponds - the Process Sedimentation Pond and the Process Return Water Pond. The Process Sedimentation Pond and the Process Return Water Pond are not CCR units.

Monitoring wells and piezometers details, including installation date, coordinates, elevations, screen interval, and designation, are summarized in Table 1. Figure 2 depicts the groundwater monitoring network systems relative to the CCR units they monitor.

1.3 Groundwater Corrective Action

Routine groundwater monitoring performed pursuant to Gulf Power's Industrial Wastewater Facility Permit No. FL0002275 detected elevated levels of certain groundwater constituents in the vicinity of and downgradient of the GSA. Further investigation indicated that the elevated levels were potentially consistent with an unpermitted discharge from GSA-related infrastructure (e.g., the piping system). Gulf Power reported the elevated levels to the Florida Department of Environmental Protection (FDEP) and entered into Consent Order OGC No. 16-1250 (the Consent Order) on September 13, 2016. Pursuant to the Consent Order, Gulf Power investigated the piping systems and equipment at the GSA and implemented appropriate corrective action. Gulf Power installed a groundwater pump and treat system designed to promote the removal of groundwater impacts. The system is comprised of nine, 6-inch recovery wells installed downgradient of the GSA. Groundwater is currently extracted, treated onsite, and disposed of through permitted deep injection wells.

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with 40 CFR §257.90(e), the following describes monitoring-related activities performed during the preceding year. Since this is the first *Annual Groundwater Monitoring and Corrective Action Report*, it also describes groundwater program-related activities performed prior to 2017. All groundwater sampling was performed in accordance with 40 CFR §257.93. Samples were collected from wells in the Professional Engineer (PE)-certified monitoring systems shown on Figure 2. A summary of groundwater sampling events completed at each CCR unit at the Site, including eight background and one detection monitoring events, is provided in Table 2.

2.1 Monitoring Well Installation and Maintenance

Groundwater monitoring systems were installed at each of the 3 CCR disposal units that (1) consist of a sufficient number of wells, (2) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer, and (3) meet the performance standards of 40 CFR §257.91(a). The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of Site-specific hydrogeologic conditions and certified by a PE.

In summary, monitoring well-related activities included:

- Installing the following groundwater monitoring wells and piezometers in November 2015 and February 2016:
    - Upgradient wells: MW-100, MW-101, MW-107, MW-108, MW-306, and MW-307;
    - LF1: MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, and MW-110;
    - LF2: MW-300, MW-303, MW-304, MW-305, and MW-308;
    - GSA: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205 and MW-206; and
    - Piezometers: MW-301 and MW-302.

- Developing new wells and piezometers using a submersible pump to restore the natural hydraulic conductivity of the formation, and to remove fine-grained sediment to ensure low- turbidity groundwater samples.

- Surveying new wells and piezometers for location and top-of-casing (TOC) elevation.

2.2 Background Monitoring

Eight independent samples were collected from wells in the certified monitoring networks between February 2016 and May 2017. Samples were analyzed for Appendix III and IV constituents. Data reports for the background sampling events are included in Appendix A.

2.3 Initial Detection Monitoring

An initial detection monitoring event was performed October 2 to 6, 2017. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents. Verification resampling was performed December 19 and 20, 2017. Analytical data from the initial detection groundwater monitoring event is provided in Table 3 and included in Appendix A. Analytical data from the resample verification event are also included in Appendix A.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following describes the methods used to conduct groundwater monitoring at the Site CCR units.

3.1 Groundwater Elevation Measurement

Prior to each sampling event, groundwater elevations were recorded from the certified well network and piezometers. Groundwater elevations recorded during the background and detection monitoring events are summarized in Table 4. Groundwater elevation data was used to develop potentiometric surface elevation contour map provided as Figure 3. As shown on Figure 3, the general direction of groundwater flow is towards the east-northeast. The groundwater flow pattern observed during the October 2017 detection monitoring event is consistent with observations made during the background period.

3.2 Groundwater Sampling

Groundwater samples were collected in accordance with 40 CFR §257.93(a). Wells were purged and sampled using a portable bladder pump or peristaltic pump using new disposable polyethylene tubing. Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, and dissolved oxygen) during well purging to verify stabilization prior to sampling. Turbidity was measured using a Hach 2100Q (or similar) portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- pH ± 0.2 Standard Units (S.U.).
- Conductivity ± 5%.
- DO < 20% saturation. If DO > 20% saturation, ±0.2 milligrams per liter (mg/L) or ±10%, whichever is greater. No criterion apply if DO < 0.5 mg/L.
- Turbidity < 20 nephelometric turbidity units (NTU).

Once stabilization was achieved, samples were collected into appropriately-preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Test America, Inc. (TAL), in Pensacola, Florida following chain-of-custody protocol.

3.3 Laboratory Analyses

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

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

3.4 Quality Assurance & Quality Control Summary

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 groundwater samples. In addition, equipment blanks and duplicate samples

were collected during each sampling event. Data from these QA/QC samples were evaluated during data validation and is included in Appendix A.

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

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the certified groundwater monitoring networks pursuant to 40 CFR §257.93 following the appropriate PE-certified method. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC (GSC), in accordance with 40 CFR §257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007. To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III parameter. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

4.1 Statistical Method

The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations.

Both interwell and intrawell statistical methods were used to evaluate groundwater quality data at the Site. The interwell prediction limits pool analytical data from background monitoring wells to establish a statistical limit for an individual constituent at a specific unit, such as one of the Ash Landfills or the GSA. This method is appropriate where there is no significant variability in the data to be pooled as determined using an Analysis of Variability (ANOVA) test. Groundwater analytical data from downgradient wells is then compared to the statistical limit for each constituent. Intrawell prediction limits use background data within a given well to establish limits for parameters at that well. Thus, a unique statistical limit is developed for each well.

To determine whether data from groundwater monitoring wells could be pooled and interwell statistical methods used, the ANOVA test was performed to understand whether there was significant variability in the data set. Testing showed that background well data did not exhibit spatial variation for boron, fluoride or total dissolved solids (TDS), making them eligible for interwell methods. Further screening was required for calcium, chloride, pH and sulfate. Confidence intervals were developed for each of these constituents. When a confidence interval for a constituent at a specific unit is above background, interwell methods are recommended for that constituent at that unit. It was determined that at least one confidence interval was above background for each of the constituents at LF1; thus, interwell methods were used. Similarly, at LF2 and the GSA, there was at least one confidence interval above background for each of these constituents, except pH. Therefore, interwell methods were used for these constituents at LF2 and the GSA, except pH for which intrawell methods were used.

4.2 Statistical Analyses Results

Analytical data from the initial detection monitoring event in October 2017 were statistically analyzed in accordance with the PE-certified *Statistical Analysis Plan* (GSC, 2017). Following completion of initial statistical analysis, wells and parameters exhibiting exceedances were resampled in December 2017 to verify the initial SSIs in accordance with the 1-of-2 verification resample plan. Based on the analysis of data, it was determined that resampled data confirmed initial SSIs, except for the following: boron at well MW-202, fluoride at wells MW-206 and MW-308; and total dissolved solids at well MW-205. Table B-1 through B-3 (Appendix B) present summary of the statistical analysis for LF1, LF2, and GSA, respectively, including prediction limits, analytical results for the initial detection monitoring event and

subsequent verification sampling, and whether the results were statistically significant. Sanitas output tables containing additional detail related to statistical limits, time series, and trend tests are provided in Appendix B. The following SSIs were observed:

LF 1

- Boron: MW-103, MW-104, MW-105, and MW-110
- Calcium: MW-103, MW-104, MW-105, MW-109, and MW-110
- Chloride: MW-103, MW-104, MW-105, and MW-110
- Fluoride: MW-104
- Sulfate: MW-103, MW-104, MW-105, MW-109, and MW-110
- TDS: MW-103, MW-104, MW-105, and MW-110
- pH: MW-104

LF 2

- Boron: MW-303, MW-304, and MW-308
- Calcium: MW-303, MW-304, and MW-308
- Chloride: MW-300, MW-303, MW-304, and MW-308
- Fluoride: MW-303
- Sulfate: MW-303, MW-304, and MW-308
- TDS: MW-303, MW-304, and MW-308
- pH: MW-304 and MW-308

GSA

- Boron: MW-200, MW-201, MW-203, MW-204, and MW-206
- Calcium: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, and MW-206
- Chloride: MW-200, MW-201, MW-202, MW-203, MW-204, and MW-206
- Fluoride: MW-201 and MW-204
- Sulfate: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, and MW-206
- TDS: MW-200, MW-201, MW-202, MW-203, MW-204, and MW-206

Time series plots provided in Appendix B (pages B-8 through B-10, B-29 through B-31, and B-49 through B-51 for LF-1, LF-2, and GSA, respectively) were used to evaluate concentrations in wells over time and to visually compare concentrations in downgradient wells to those in background wells. While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was performed for all wells and parameters where SSIs were observed (listed above) to determine whether concentrations are statistically significantly increasing, decreasing or stabilizing over time. Additionally, upgradient wells are included in the trend analyses as a reference for the same parameters.

All results, and trend test summary tables with significant results, are provided in Appendix B. (pages B-11 through B-15, B-32 through B-34, and B-52 through B-56 for LF-1, LF-2, and GSA, respectively). Statistically significant decreasing trends were identified in six wells and may be seen on the Trend Test Summary table which accompanies the trend tests that were significant.

No statistically significant increasing trends were noted with the exception of chloride in well MW-103. Chloride in MW-103 was observed at 10 mg/L, slightly above the constructed PL of 6.959 mg/L. Due to the low detected chloride concentrations in MW-103, slight variation in the concentration over time can result in a statistically significant trend. The lack of increasing statistically significant trends indicates that concentrations in wells are stable or decreasing.

4.3 Appendix IV Background Data

In accordance with 40 CFR §257.95, Gulf Power will statistically analyze and compare Appendix IV groundwater quality data to groundwater protection standards if assessment monitoring is implemented.

5.0 MONITORING PROGRAM STATUS

As discussed in previous sections, SSIs of Appendix III parameters were identified at LF1, LF2, and the GSA. In accordance with 40 CFR §257.94(e), Gulf Power will prepare an alternate source demonstration (ASD) and/or implement assessment monitoring.

6.0 CONCLUSIONS & FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Site identified SSIs of Appendix III groundwater monitoring parameters above background. In accordance with 40 CFR §257.94(e), Gulf Power will conduct an ASD and/or initiate an assessment monitoring program. Additionally, Gulf Power will continue to operate the groundwater pump and treat system, which is designed to promote the removal of impacted groundwater.

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

7.0 REFERENCES

Barraclough, J.T., and Marsh, O.T., 1962, *Aquifers and quality of ground water along the Gulf Coast of Florida: Florida Geological Survey Report of Investigations No. 29*, 28p.

GSC, 2017. *Gulf Power Company Plant Crist Ash Landfill No. 1, Ash Landfill No. 2, and Gypsum Storage Area Statistical Analysis Plan*. October.

Richards, C.J., 2001, *Results of the ECUA Beulah Constant Rate Aquifer Test, Sand-and-Gravel Aquifer, Escambia County Florida*. Northwest Florida Water Management District.

Roaza, H.P., Pratt, T.R., Richards, C.J., Johnson, J.L. and Wagner, J.R., 1991, *Conceptual Model of the Sand-and-Gravel Aquifer, Escambia County, Florida: Northwest Florida Water Management District, Water Resources Special Report 91-6*, 117 p.

USEPA, 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, *Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

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

USEPA, 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule.* [EPA-HQ-RCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81. April.

USEPA, 2017. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.

TABLES

Table 1
Monitoring Well Network Summary

Well Name	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Designation
MW-100	11/11/2015	578116.11	1107316.00	99.84	103.03	-5.16	-15.16	Upgradient
MW-101	11/10/2015	577158.45	1107724.27	105.1	108	-1.9	-11.9	Upgradient
MW-102	11/10/2015	576886.86	1108472.89	112.59	112.17	2.59	-7.41	Downgradient
MW-103	11/7/2015	577354.11	1109233.05	121.28	120.79	11.28	1.28	Downgradient
MW-104	11/4/2015	578494.34	1108915.77	65.15	68.25	-4.85	-14.85	Downgradient
MW-105	11/17/2015	579092.61	1108688.61	27.39	30.53	-2.61	-12.61	Downgradient
MW-106	11/3/2015	578765.08	1107895.05	74.8	77.99	-5.2	-15.2	Downgradient
MW-107	11/17/2015	577201.66	1107442.83	111.4	114.71	1.4	-8.6	Upgradient
MW-108	11/17/2015	576208.36	1107577.06	80.51	83.54	-4.49	-14.49	Upgradient
MW-109	11/20/2015	577624.83	1109293.64	116.82	119.85	-2.68	-12.68	Downgradient
MW-110	11/21/2015	578095.94	1109139.45	87.3	90.33	-17.7	-27.7	Downgradient
MW-200	11/11/2015	581703.17	1108041.01	17.2	20.13	-2.8	-12.8	Downgradient
MW-201	11/11/2015	581138.29	1108637.91	52.45	52.12	3.15	-6.85	Downgradient
MW-202	11/10/2015	580559.03	1109045.35	55.8	55.45	6.3	-3.7	Downgradient
MW-203	11/9/2015	580100.37	1108497.51	47.46	50.6	-2.54	-12.54	Downgradient
MW-204	11/9/2015	580325.06	1107978.45	16.43	19.47	-3.57	-13.57	Downgradient
MW-205	11/17/2015	581076.41	1107907.46	17.31	20.28	-2.69	-12.69	Downgradient
MW-206	2/9/2016	581888.48	1108613.37	26.25	29.11	1.25	-8.75	Downgradient
MW-300	11/7/2015	579587.59	1106288.51	64.96	68.8	-0.04	-10.04	Downgradient
MW-301	11/7/2015	579282.59	1106601.15	77.18	80.51	-2.82	-12.82	Piezometer
MW-302	11/5/2015	579752.44	1107202.72	54.89	57.97	-5.11	-15.11	Piezometer
MW-303	11/5/2015	580183.01	1107460.45	41.87	44.97	-8.13	-18.13	Downgradient
MW-304	11/6/2015	580661.43	1106931.50	38.83	41.82	-1.17	-11.17	Downgradient
MW-305	11/6/2015	580179.89	1106680.03	55.21	58.57	-4.79	-14.79	Downgradient
MW-306	11/19/2015	578417.11	1106200.44	67.61	70.56	-12.39	-22.39	Upgradient
MW-307	11/19/2015	578209.77	1106865.99	101.11	104.18	-8.89	-18.89	Upgradient
MW-308	2/9/2016	580349.51	1107304.17	39.84	42.65	-10.16	-20.16	Downgradient

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
Groundwater Sampling Event Summary

Well Name	Background 1	Background 2	Background 3	Background 4	Background 5	Background 6	Background 7	Background 8	Detection 1
MW-100	2/29/2016	5/2/2016	7/5/2016	9/6/2016	11/7/2016	1/9/2017	3/13/2017	5/15/2017	10/2/2017
MW-101	2/29/2016	5/4/2016	7/8/2016	9/6/2016	11/10/2016	1/11/217	3/14/2017	5/18/2017	10/5/2017
MW-102	3/1/2016	5/5/2016	7/7/2016	9/6/2016	11/10/2016	1/12/2017	3/15/2017	5/18/2017	10/6/2017
MW-103	3/1/2016	5/5/2016	7/7/2016	9/7/2016	11/10/2016	1/12/2017	3/15/2017	5/18/2017	10/6/2017
MW-104	3/1/2016	5/5/2016	7/7/2016	9/7/2016	11/9/2016	1/11/2017	3/14/2017	5/18/2017	10/5/2017
MW-105	3/1/2016	5/5/2016	7/7/2016	9/7/2016	11/9/2016	1/11/2017	3/14/2017	5/18/2017	10/5/2017
MW-106	3/1/2016	5/4/2016	7/8/2016	9/7/2016	11/9/2016	1/11/2017	3/14/2017	5/18/2017	10/5/2017
MW-107	2/29/2016	5/2/2016	7/5/2016	9/6/2016	11/7/2016	1/9/2017	3/13/2017	5/15/2017	10/2/2017
MW-108	2/29/2016	5/2/2016	7/5/2016	9/6/2016	11/7/2016	1/9/2017	3/13/2017	5/15/2017	10/2/2017
MW-109	3/2/2016	5/5/2016	7/7/2016	9/7/2016	11/10/2016	1/12/2017	3/14/2017	5/18/2017	10/5/2017
MW-110	3/2/2016	5/5/2016	7/7/2016	9/7/2016	11/10/2016	1/12/2017	3/15/2017	5/18/2017	10/6/2017
MW-200	3/2/2016	5/3/2016	7/5/2016	9/8/2016	11/9/2016	1/12/2017	3/17/2017	5/16/2017	10/4/2017
MW-201	3/2/2016	5/4/2016	7/6/2016	9/8/2016	11/9/2016	1/13/2017	3/16/2017	5/17/2017	10/4/2017
MW-202	3/2/2016	5/3/2016	7/6/2016	9/8/2016	11/8/2016	1/13/2017	3/16/2017	5/17/2017	10/4/2017
MW-203	3/3/2016	5/3/2016	7/5/2016	9/8/2016	11/8/2016	1/12/2017	3/16/2017	5/17/2017	10/4/2017
MW-204	3/2/2016	5/3/2016	7/5/2016	9/8/2016	11/8/2016	1/12/2017	3/16/2017	5/17/2017	10/4/2017
MW-205	3/2/2016	5/3/2016	7/6/2016	9/8/2016	11/8/2016	1/12/2016	3/16/2017	5/17/2017	10/4/2017
MW-206	3/2/2016	5/3/2016	7/5/2016	9/8/2016	11/9/216	1/12/2016	3/17/2017	5/17/2017	10/3/2017
MW-300	3/3/2016	5/4/2016	7/7/2016	9/7/2016	11/8/2016	1/10/2017	3/15/2017	5/16/2017	10/3/2017
MW-303	3/3/2016	5/4/2016	7/6/2016	9/8/2016	11/8/2016	1/10/2017	3/16/2017	5/15/2017	10/3/2017
MW-304	3/3/2016	5/4/2016	7/6/2016	9/7/2016	11/8/2016	1/10/2017	3/15/2017	5/16/2017	10/3/2017
MW-305	3/3/2016	5/4/2016	7/7/2016	9/7/2016	11/7/2016	1/10/2017	3/15/2017	5/16/2017	10/3/2017
MW-306	3/1/2016	5/3/2016	7/5/2016	9/6/2016	11/7/2016	1/9/2017	3/13/2017	5/15/2017	10/2/2017
MW-307	3/1/2016	5/2/2016	7/5/2016	9/6/2016	11/7/2016	1/9/2017	3/13/2017	5/15/2017	10/2/2017
MW-308	3/3/2016	5/4/2016	7/6/2016	9/7/2016	11/8/2016	1/10/2017	3/16/2017	5/16/2017	10/3/2017

Notes:

1. Background indicates a sampling event conducted during background data collection, and includes groundwater samples analyzed for Appendix III and IV parameters.
2. Detection indicates a sampling event conducted during detection monitoring, and includes groundwater samples analyzed for Appendix III parameters.

Table 3
Summary of Groundwater Analytical Data - October 2017

Monitoring Well	Sample Date	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	TDS (mg/L)
MW-100	10/2/2017	<0.021	0.78	5.5	<0.032	4.64	<1.4	<3.4
MW-101	10/5/2017	<0.021	0.39	5.6	<0.032	4.63	<1.4	<3.4
MW-102	10/6/2017	<0.021	0.56	6	<0.032	4.56	<1.4	22
MW-103	10/6/2017	0.37	4.3	10	<0.032	5.07	39	110
MW-104	10/5/2017	12	55	120	0.22	3.79	500	980
MW-105	10/5/2017	0.32	58	33	<0.032	6.07	7.7	240
MW-106	10/5/2017	<0.021	0.39	4.5	<0.032	4.77	<1.4	<3.4
MW-107	10/2/2017	<0.021	0.47	6.1	<0.032	4.63	<1.4	<3.4
MW-108	10/2/2017	0.023 I	1.2	6	<0.032	4.54	3.4 I	6
MW-109	10/5/2017	0.047 I	3.7	5.8	<0.032	4.52	9.8	<3.4
MW-110	10/6/2017	2.3	15	62	<0.032	5.73	140	360
MW-200	10/4/2017	18	490	910	0.08 I	4.89	250	3,400
MW-201	10/4/2017	6	100	160	0.96	4.84	240	700
MW-202	10/4/2017	0.087	4.9	17	0.04 I	4.47	8.5	48
MW-203	10/4/2017	0.97	24	17	0.06 I	4.46	82	150
MW-204	10/4/2017	5.9	74	70	0.31	4.14	350	710
MW-205	10/4/2017	0.039 I	26	2.7	<0.032	5.66	15	50
MW-206	10/3/2017	52	1,300	2,300	0.11	4.11	480	7,100
MW-300	10/3/2017	0.03 I	0.46	8.9	<0.032	4.44	<1.4	34
MW-303	10/3/2017	2.9	43	38	0.25	6.48	130	310
MW-304	10/3/2017	0.67	160	21	0.07 I	6.36	440	760
MW-305	10/3/2017	0.026 I	0.68	7.1	<0.032	4.64	<1.4	36
MW-306	10/2/2017	<0.021	0.62	5.5	<0.032	4.88	1.5 I	16
MW-307	10/2/2017	<0.021	0.83	4.8	<0.032	5.63	1.7 I	24
MW-308	10/3/2017	0.93	59	20	0.13	5.47	180	320

Notes:

1. < indicates the parameter was not detected above the laboratory method detection limit (MDL).
2. When values are followed by a "I" flag, this indicates that the value is an estimated analyte concentration detected between the MDL and the laboratory reporting limit (PQL).
3. mg/L indicates milligrams per liter.
4. S.U. indicates standard units.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	2/29/2016	90.66	12.37
MW-101	577158.45	1107724.27	108	2/29/2016	96.45	11.55
MW-102	576886.86	1108472.89	112.17	2/29/2016	102.51	9.66
MW-103	577354.11	1109233.05	120.79	2/29/2016	112.19	8.60
MW-104	578494.34	1108915.77	68.25	2/29/2016	59.20	9.05
MW-105	579092.61	1108688.61	30.53	2/29/2016	21.29	9.24
MW-106	578765.08	1107895.05	77.99	2/29/2016	66.95	11.04
MW-107	577201.66	1107442.83	114.71	2/29/2016	102.11	12.60
MW-108	576208.36	1107577.06	83.54	2/29/2016	70.31	13.23
MW-109	577624.83	1109293.64	119.85	2/29/2016	111.33	8.52
MW-110	578095.94	1109139.45	90.33	2/29/2016	81.61	8.72
MW-200	581703.17	1108041.01	20.13	2/29/2016	16.07	4.06
MW-201	581138.29	1108637.91	52.12	2/29/2016	47.15	4.97
MW-202	580559.03	1109045.35	55.45	2/29/2016	40.49*	14.96
MW-203	580100.37	1108497.51	50.6	2/29/2016	44.07	6.53
MW-204	580325.06	1107978.45	19.47	2/29/2016	12.36	7.11
MW-205	581076.41	1107907.46	20.28	2/29/2016	15.35	4.93
MW-206	581888.48	1108613.37	29.11	2/29/2016	25.06	4.05
MW-300	579587.59	1106288.51	68.8	2/29/2016	57.05	11.75
MW-301	579282.59	1106601.15	80.51	2/29/2016	68.19	12.32
MW-302	579752.44	1107202.72	57.97	2/29/2016	46.14	11.83
MW-303	580183.01	1107460.45	44.97	2/29/2016	34.85	10.12
MW-304	580661.43	1106931.50	41.82	2/29/2016	33.91	7.91
MW-305	580179.89	1106680.03	58.57	2/29/2016	48.88	9.69
MW-306	578417.11	1106200.44	70.56	2/29/2016	55.98	14.58
MW-307	578209.77	1106865.99	104.18	2/29/2016	90.75	13.43
MW-308	580349.51	1107304.17	42.65	2/29/2016	33.11	9.54

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.
3. Depth to water measurements are in feet.
4. * depth to water is not consistent and is considered anamolous.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	5/2/2016	89.59	13.44
MW-101	577158.45	1107724.27	108	5/2/2016	94.94	13.06
MW-102	576886.86	1108472.89	112.17	5/2/2016	100.90	11.27
MW-103	577354.11	1109233.05	120.79	5/2/2016	111.19	9.60
MW-104	578494.34	1108915.77	68.25	5/2/2016	58.55	9.70
MW-105	579092.61	1108688.61	30.53	5/2/2016	20.74	9.79
MW-106	578765.08	1107895.05	77.99	5/2/2016	66.17	11.82
MW-107	577201.66	1107442.83	114.71	5/2/2016	100.66	14.05
MW-108	576208.36	1107577.06	83.54	5/2/2016	68.51	15.03
MW-109	577624.83	1109293.64	119.85	5/2/2016	110.54	9.31
MW-110	578095.94	1109139.45	90.33	5/2/2016	80.89	9.44
MW-200	581703.17	1108041.01	20.13	5/2/2016	16.00	4.13
MW-201	581138.29	1108637.91	52.12	5/2/2016	47.02	5.10
MW-202	580559.03	1109045.35	55.45	5/2/2016	50.25	5.20
MW-203	580100.37	1108497.51	50.6	5/2/2016	43.95	6.65
MW-204	580325.06	1107978.45	19.47	5/2/2016	11.47	8.00
MW-205	581076.41	1107907.46	20.28	5/2/2016	15.42	4.86
MW-206	581888.48	1108613.37	29.11	5/2/2016	24.92	4.19
MW-300	579587.59	1106288.51	68.8	5/2/2016	56.21	12.59
MW-301	579282.59	1106601.15	80.51	5/2/2016	67.36	13.15
MW-302	579752.44	1107202.72	57.97	5/2/2016	45.75	12.22
MW-303	580183.01	1107460.45	44.97	5/2/2016	34.68	10.29
MW-304	580661.43	1106931.50	41.82	5/2/2016	34.35	7.47
MW-305	580179.89	1106680.03	58.57	5/2/2016	48.16	10.41
MW-306	578417.11	1106200.44	70.56	5/2/2016	55.09	15.47
MW-307	578209.77	1106865.99	104.18	5/2/2016	89.79	14.39
MW-308	580349.51	1107304.17	42.65	5/2/2016	32.88	9.77

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.
3. Depth to water measurements are in feet.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	7/4/2016	89.98	13.05
MW-101	577158.45	1107724.27	108	7/4/2016	95.41	12.59
MW-102	576886.86	1108472.89	112.17	7/4/2016	101.50	10.67
MW-103	577354.11	1109233.05	120.79	7/4/2016	111.53	9.26
MW-104	578494.34	1108915.77	68.25	7/4/2016	58.89	9.36
MW-105	579092.61	1108688.61	30.53	7/4/2016	21.57	8.96
MW-106	578765.08	1107895.05	77.99	7/4/2016	66.68	11.31
MW-107	577201.66	1107442.83	114.71	7/4/2016	101.03	13.68
MW-108	576208.36	1107577.06	83.54	7/4/2016	68.88	14.66
MW-109	577624.83	1109293.64	119.85	7/4/2016	110.86	8.99
MW-110	578095.94	1109139.45	90.33	7/4/2016	81.16	9.17
MW-200	581703.17	1108041.01	20.13	7/4/2016	16.86	3.27
MW-201	581138.29	1108637.91	52.12	7/4/2016	48.06	4.06
MW-202	580559.03	1109045.35	55.45	7/4/2016	51.05	4.40
MW-203	580100.37	1108497.51	50.6	7/4/2016	44.77	5.83
MW-204	580325.06	1107978.45	19.47	7/4/2016	13.29	6.18
MW-205	581076.41	1107907.46	20.28	7/4/2016	16.08	4.20
MW-206	581888.48	1108613.37	29.11	7/4/2016	25.85	3.26
MW-300	579587.59	1106288.51	68.8	7/4/2016	57.27	11.53
MW-301	579282.59	1106601.15	80.51	7/4/2016	68.26	12.25
MW-302	579752.44	1107202.72	57.97	7/4/2016	46.59	11.38
MW-303	580183.01	1107460.45	44.97	7/4/2016	35.78	9.19
MW-304	580661.43	1106931.50	41.82	7/4/2016	34.70	7.12
MW-305	580179.89	1106680.03	58.57	7/4/2016	49.34	9.23
MW-306	578417.11	1106200.44	70.56	7/4/2016	55.69	14.87
MW-307	578209.77	1106865.99	104.18	7/4/2016	90.20	13.98
MW-308	580349.51	1107304.17	42.65	7/4/2016	34.04	8.61

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.
3. Depth to water measurements are in feet.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	9/6/2016	90.54	12.49
MW-101	577158.45	1107724.27	108	9/6/2016	96.33	11.67
MW-102	576886.86	1108472.89	112.17	9/6/2016	102.18	9.99
MW-103	577354.11	1109233.05	120.79	9/6/2016	112.12	8.67
MW-104	578494.34	1108915.77	68.25	9/6/2016	59.29	8.96
MW-105	579092.61	1108688.61	30.53	9/6/2016	21.61	8.92
MW-106	578765.08	1107895.05	77.99	9/6/2016	66.89	11.10
MW-107	577201.66	1107442.83	114.71	9/6/2016	102.04	12.67
MW-108	576208.36	1107577.06	83.54	9/6/2016	70.36	13.18
MW-109	577624.83	1109293.64	119.85	9/6/2016	110.43	9.42
MW-110	578095.94	1109139.45	90.33	9/6/2016	81.68	8.65
MW-200	581703.17	1108041.01	20.13	9/6/2016	16.52	3.61
MW-201	581138.29	1108637.91	52.12	9/6/2016	47.73	4.39
MW-202	580559.03	1109045.35	55.45	9/6/2016	50.72	4.73
MW-203	580100.37	1108497.51	50.6	9/6/2016	44.48	6.12
MW-204	580325.06	1107978.45	19.47	9/6/2016	12.88	6.59
MW-205	581076.41	1107907.46	20.28	9/6/2016	15.76	4.52
MW-206	581888.48	1108613.37	29.11	9/6/2016	25.40	3.71
MW-300	579587.59	1106288.51	68.8	9/6/2016	57.18	11.62
MW-301	579282.59	1106601.15	80.51	9/6/2016	68.25	12.26
MW-302	579752.44	1107202.72	57.97	9/6/2016	46.34	11.63
MW-303	580183.01	1107460.45	44.97	9/6/2016	35.06	9.91
MW-304	580661.43	1106931.50	41.82	9/6/2016	33.99	7.83
MW-305	580179.89	1106680.03	58.57	9/6/2016	48.92	9.65
MW-306	578417.11	1106200.44	70.56	9/6/2016	55.96	14.60
MW-307	578209.77	1106865.99	104.18	9/6/2016	90.67	13.51
MW-308	580349.51	1107304.17	42.65	9/6/2016	33.16	9.49

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.
3. Depth to water measurements are in feet.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	11/7/2016	90.80	12.23
MW-101	577158.45	1107724.27	108	11/7/2016	96.46	11.54
MW-102	576886.86	1108472.89	112.17	11/7/2016	102.53	9.64
MW-103	577354.11	1109233.05	120.79	11/7/2016	112.32	8.47
MW-104	578494.34	1108915.77	68.25	11/7/2016	59.49	8.76
MW-105	579092.61	1108688.61	30.53	11/7/2016	22.19	8.34
MW-106	578765.08	1107895.05	77.99	11/7/2016	67.36	10.63
MW-107	577201.66	1107442.83	114.71	11/7/2016	102.09	12.62
MW-108	576208.36	1107577.06	83.54	11/7/2016	70.29	13.25
MW-109	577624.83	1109293.64	119.85	11/7/2016	111.52	8.33
MW-110	578095.94	1109139.45	90.33	11/7/2016	81.82	8.51
MW-200	581703.17	1108041.01	20.13	11/7/2016	17.08	3.05
MW-201	581138.29	1108637.91	52.12	11/7/2016	48.29	3.83
MW-202	580559.03	1109045.35	55.45	11/7/2016	51.15	4.30
MW-203	580100.37	1108497.51	50.6	11/7/2016	45.04	5.56
MW-204	580325.06	1107978.45	19.47	11/7/2016	13.75	5.72
MW-205	581076.41	1107907.46	20.28	11/7/2016	16.33	3.95
MW-206	581888.48	1108613.37	29.11	11/7/2016	25.99	3.12
MW-300	579587.59	1106288.51	68.8	11/7/2016	57.93	10.87
MW-301	579282.59	1106601.15	80.51	11/7/2016	68.95	11.56
MW-302	579752.44	1107202.72	57.97	11/7/2016	47.54	10.43
MW-303	580183.01	1107460.45	44.97	11/7/2016	36.58	8.39
MW-304	580661.43	1106931.50	41.82	11/7/2016	35.20	6.62
MW-305	580179.89	1106680.03	58.57	11/7/2016	49.95	8.62
MW-306	578417.11	1106200.44	70.56	11/7/2016	56.45	14.11
MW-307	578209.77	1106865.99	104.18	11/7/2016	91.00	13.18
MW-308	580349.51	1107304.17	42.65	11/7/2016	34.69	7.96

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.
3. Depth to water measurements are in feet.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	1/9/2017	91.02	12.01
MW-101	577158.45	1107724.27	108	1/9/2017	96.68	11.32
MW-102	576886.86	1108472.89	112.17	1/9/2017	103.22	8.95
MW-103	577354.11	1109233.05	120.79	1/9/2017	112.41	8.38
MW-104	578494.34	1108915.77	68.25	1/9/2017	59.60	8.65
MW-105	579092.61	1108688.61	30.53	1/9/2017	21.26	9.27
MW-106	578765.08	1107895.05	77.99	1/9/2017	67.05	10.94
MW-107	577201.66	1107442.83	114.71	1/9/2017	102.45	12.26
MW-108	576208.36	1107577.06	83.54	1/9/2017	70.56	12.98
MW-109	577624.83	1109293.64	119.85	1/9/2017	111.60	8.25
MW-110	578095.94	1109139.45	90.33	1/9/2017	81.90	8.43
MW-200	581703.17	1108041.01	20.13	1/9/2017	15.40	4.73
MW-201	581138.29	1108637.91	52.12	1/9/2017	47.05	5.07
MW-202	580559.03	1109045.35	55.45	1/9/2017	50.65	4.80
MW-203	580100.37	1108497.51	50.6	1/9/2017	44.20	6.40
MW-204	580325.06	1107978.45	19.47	1/9/2017	11.90	7.57
MW-205	581076.41	1107907.46	20.28	1/9/2017	14.95	5.33
MW-206	581888.48	1108613.37	29.11	1/9/2017	24.32	4.79
MW-300	579587.59	1106288.51	68.8	1/9/2017	57.28	11.52
MW-301	579282.59	1106601.15	80.51	1/9/2017	68.56	11.95
MW-302	579752.44	1107202.72	57.97	1/9/2017	44.75	13.22
MW-303	580183.01	1107460.45	44.97	1/9/2017	32.32	12.65
MW-304	580661.43	1106931.50	41.82	1/9/2017	32.12	9.70
MW-305	580179.89	1106680.03	58.57	1/9/2017	48.50	10.07
MW-306	578417.11	1106200.44	70.56	1/9/2017	56.34	14.22
MW-307	578209.77	1106865.99	104.18	1/9/2017	91.14	13.04
MW-308	580349.51	1107304.17	42.65	1/9/2017	30.30	12.35

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.
3. Depth to water measurements are in feet.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	3/13/2017	89.94	13.09
MW-101	577158.45	1107724.27	108	3/13/2017	95.32	12.68
MW-102	576886.86	1108472.89	112.17	3/13/2017	101.42	10.75
MW-103	577354.11	1109233.05	120.79	3/13/2017	111.27	9.52
MW-104	578494.34	1108915.77	68.25	3/13/2017	58.77	9.48
MW-105	579092.61	1108688.61	30.53	3/13/2017	21.45	9.08
MW-106	578765.08	1107895.05	77.99	3/13/2017	66.60	11.39
MW-107	577201.66	1107442.83	114.71	3/13/2017	100.97	13.74
MW-108	576208.36	1107577.06	83.54	3/13/2017	68.87	14.67
MW-109	577624.83	1109293.64	119.85	3/13/2017	110.53	9.32
MW-110	578095.94	1109139.45	90.33	3/13/2017	80.90	9.43
MW-200	581703.17	1108041.01	20.13	3/13/2017	16.70	3.43
MW-201	581138.29	1108637.91	52.12	3/13/2017	47.80	4.32
MW-202	580559.03	1109045.35	55.45	3/13/2017	50.86	4.59
MW-203	580100.37	1108497.51	50.6	3/13/2017	44.55	6.05
MW-204	580325.06	1107978.45	19.47	3/13/2017	12.92	6.55
MW-205	581076.41	1107907.46	20.28	3/13/2017	15.86	4.42
MW-206	581888.48	1108613.37	29.11	3/13/2017	25.68	3.43
MW-300	579587.59	1106288.51	68.8	3/13/2017	56.99	11.81
MW-301	579282.59	1106601.15	80.51	3/13/2017	68.04	12.47
MW-302	579752.44	1107202.72	57.97	3/13/2017	46.74	11.23
MW-303	580183.01	1107460.45	44.97	3/13/2017	35.62	9.35
MW-304	580661.43	1106931.50	41.82	3/13/2017	34.32	7.50
MW-305	580179.89	1106680.03	58.57	3/13/2017	49.01	9.56
MW-306	578417.11	1106200.44	70.56	3/13/2017	55.34	15.22
MW-307	578209.77	1106865.99	104.18	3/13/2017	90.03	14.15
MW-308	580349.51	1107304.17	42.65	3/13/2017	33.61	9.04

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.
3. Depth to water measurements are in feet.

Table 4
Summary of Groundwater Elevations

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	5/15/2017	90.22	12.81
MW-101	577158.45	1107724.27	108	5/15/2017	95.67	12.33
MW-102	576886.86	1108472.89	112.17	5/15/2017	101.99	10.18
MW-103	577354.11	1109233.05	120.79	5/15/2017	111.67	9.12
MW-104	578494.34	1108915.77	68.25	5/15/2017	59.23	9.02
MW-105	579092.61	1108688.61	30.53	5/15/2017	21.96	8.57
MW-106	578765.08	1107895.05	77.99	5/15/2017	67.01	10.98
MW-107	577201.66	1107442.83	114.71	5/15/2017	101.26	13.45
MW-108	576208.36	1107577.06	83.54	5/15/2017	69.21	14.33
MW-109	577624.83	1109293.64	119.85	5/15/2017	111.03	8.82
MW-110	578095.94	1109139.45	90.33	5/15/2017	81.43	8.90
MW-200	581703.17	1108041.01	20.13	5/15/2017	17.06	3.07
MW-201	581138.29	1108637.91	52.12	5/15/2017	48.34	3.78
MW-202	580559.03	1109045.35	55.45	5/15/2017	51.43	4.02
MW-203	580100.37	1108497.51	50.6	5/15/2017	45.16	5.44
MW-204	580325.06	1107978.45	19.47	5/15/2017	13.59	5.88
MW-205	581076.41	1107907.46	20.28	5/15/2017	16.24	4.04
MW-206	581888.48	1108613.37	29.11	5/15/2017	26.04	3.07
MW-300	579587.59	1106288.51	68.8	5/15/2017	57.62	11.18
MW-301	579282.59	1106601.15	80.51	5/15/2017	68.69	11.82
MW-302	579752.44	1107202.72	57.97	5/15/2017	47.35	10.62
MW-303	580183.01	1107460.45	44.97	5/15/2017	36.3	8.67
MW-304	580661.43	1106931.50	41.82	5/15/2017	34.89	6.93
MW-305	580179.89	1106680.03	58.57	5/15/2017	49.70	8.87
MW-306	578417.11	1106200.44	70.56	5/15/2017	55.91	14.65
MW-307	578209.77	1106865.99	104.18	5/15/2017	90.44	13.74
MW-308	580349.51	1107304.17	42.65	5/15/2017	34.32	8.33

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.
3. Depth to water measurements are in feet.

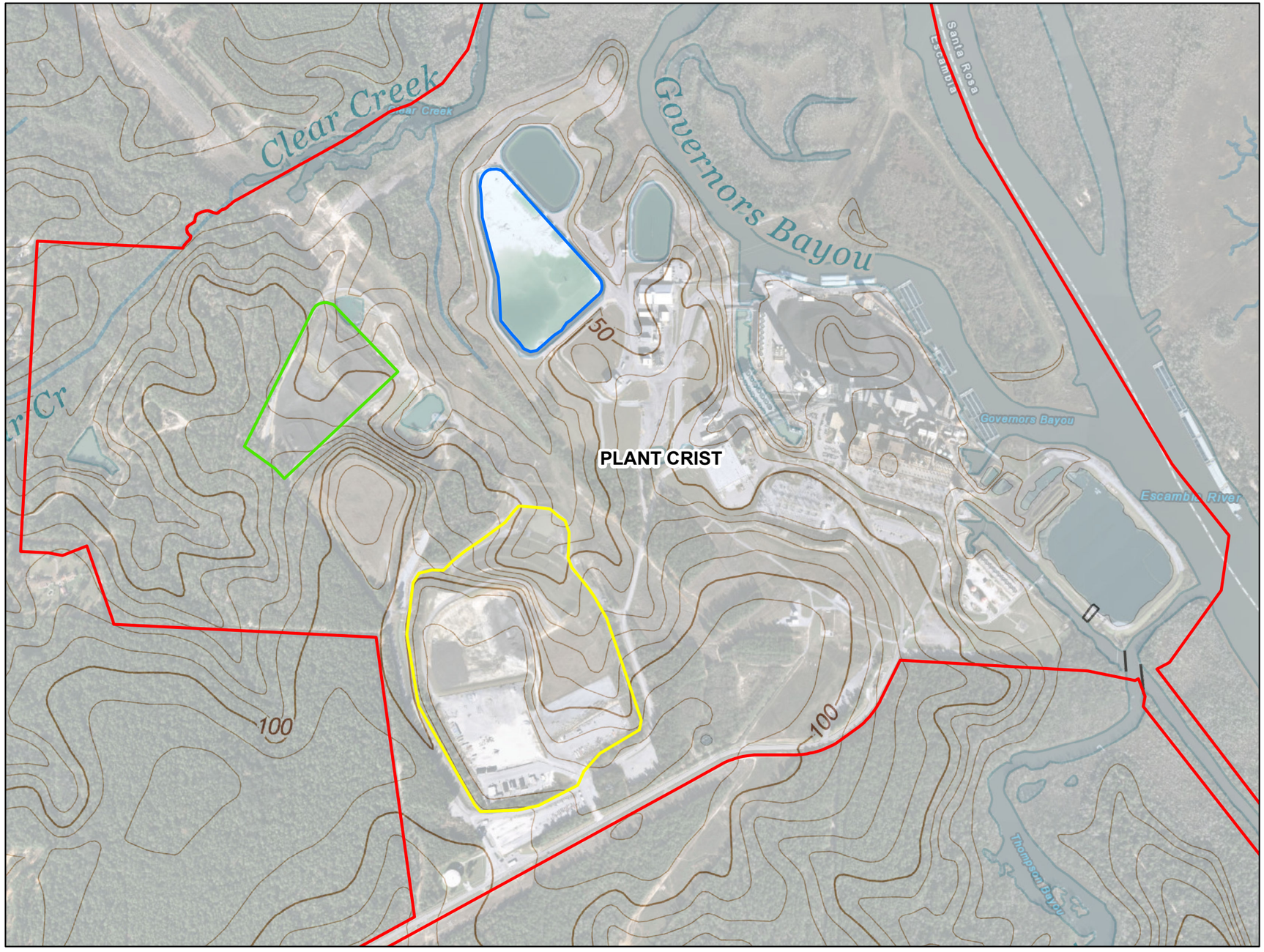
Table 4
Summary of Groundwater Elevations

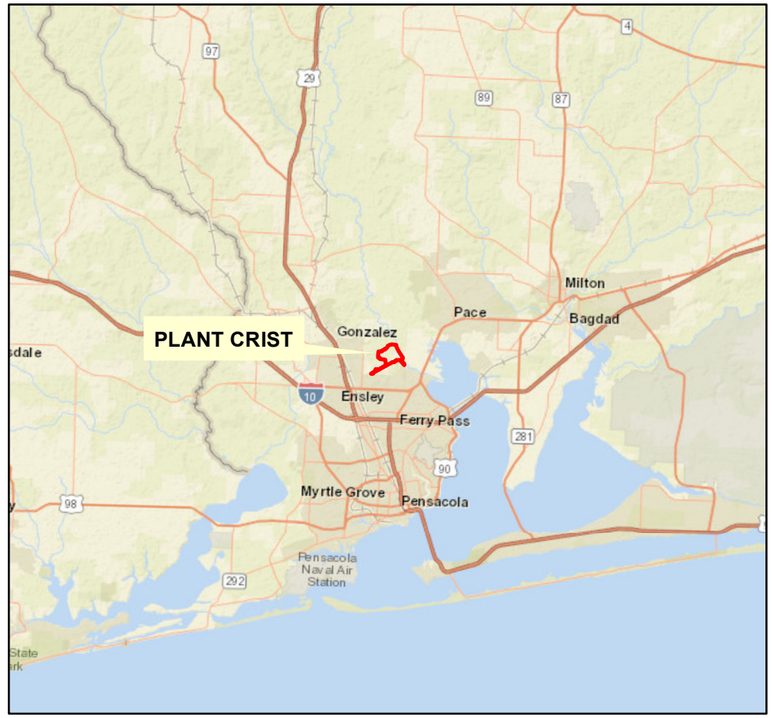
Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	10/2/2017	89.79	13.24
MW-101	577158.45	1107724.27	108	10/2/2017	95.65	12.35
MW-102	576886.86	1108472.89	112.17	10/2/2017	101.91	10.26
MW-103	577354.11	1109233.05	120.79	10/2/2017	111.37	9.42
MW-104	578494.34	1108915.77	68.25	10/2/2017	58.62	9.63
MW-105	579092.61	1108688.61	30.53	10/2/2017	21.09	9.44
MW-106	578765.08	1107895.05	77.99	10/2/2017	66.34	11.65
MW-107	577201.66	1107442.83	114.71	10/2/2017	101.18	13.53
MW-108	576208.36	1107577.06	83.54	10/2/2017	69.18	14.36
MW-109	577624.83	1109293.64	119.85	10/2/2017	110.60	9.25
MW-110	578095.94	1109139.45	90.33	10/2/2017	80.95	9.38
MW-200	581703.17	1108041.01	20.13	10/2/2017	16.49	3.64
MW-201	581138.29	1108637.91	52.12	10/2/2017	47.65	4.47
MW-202	580559.03	1109045.35	55.45	10/2/2017	50.59	4.86
MW-203	580100.37	1108497.51	50.6	10/2/2017	44.29	6.31
MW-204	580325.06	1107978.45	19.47	10/2/2017	12.87	6.60
MW-205	581076.41	1107907.46	20.28	10/2/2017	15.77	4.51
MW-206	581888.48	1108613.37	29.11	10/2/2017	25.38	3.73
MW-300	579587.59	1106288.51	68.8	10/2/2017	56.47	12.33
MW-301	579282.59	1106601.15	80.51	10/2/2017	67.56	12.95
MW-302	579752.44	1107202.72	57.97	10/2/2017	46.28	11.69
MW-303	580183.01	1107460.45	44.97	10/2/2017	35.29	9.68
MW-304	580661.43	1106931.50	41.82	10/2/2017	33.86	7.96
MW-305	580179.89	1106680.03	58.57	10/2/2017	48.48	10.09
MW-306	578417.11	1106200.44	70.56	10/2/2017	55.08	15.48
MW-307	578209.77	1106865.99	104.18	10/2/2017	89.85	14.33
MW-308	580349.51	1107304.17	42.65	10/2/2017	33.28	9.37

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.
3. Depth to water measurements are in feet.

FIGURES





Miles
0 5 10 20 30 40
1 in = 10 miles

Legend

- CCR Landfill No. 1 Boundary
- CCR Landfill No. 2 Boundary
- Gypsum Storage Area Boundary
- Approximate Property Boundary

NOTES:
1. TOPOGRAPHIC CONTOUR INTERVAL IS 10 FEET.
2. ALL BOUNDARIES ARE APPROXIMATE.

REFERENCES:
1. USGS 7.5 MINUTE QUADRANGLE, PACE, FL 2015.
2. PROPERTY BOUNDARY LINE MODIFIED FROM THE GULF POWER LAND DEPARTMENT.

N

Feet
0 400 800 1,600 2,400 3,200
1 inch = 800 feet

Copyright © 2017 Southern Company Services, Inc. All Rights Reserved.
This document contains proprietary, confidental, and/or trade secret information of the subsidiaries of The Southern Company or of third parties. It is intended for use only by employees of, or authorized contractors of, the subsidiaries of the Southern Company. Unauthorized possession, use, distribution, copying, dissemination, or disclosure of any portion is prohibited.

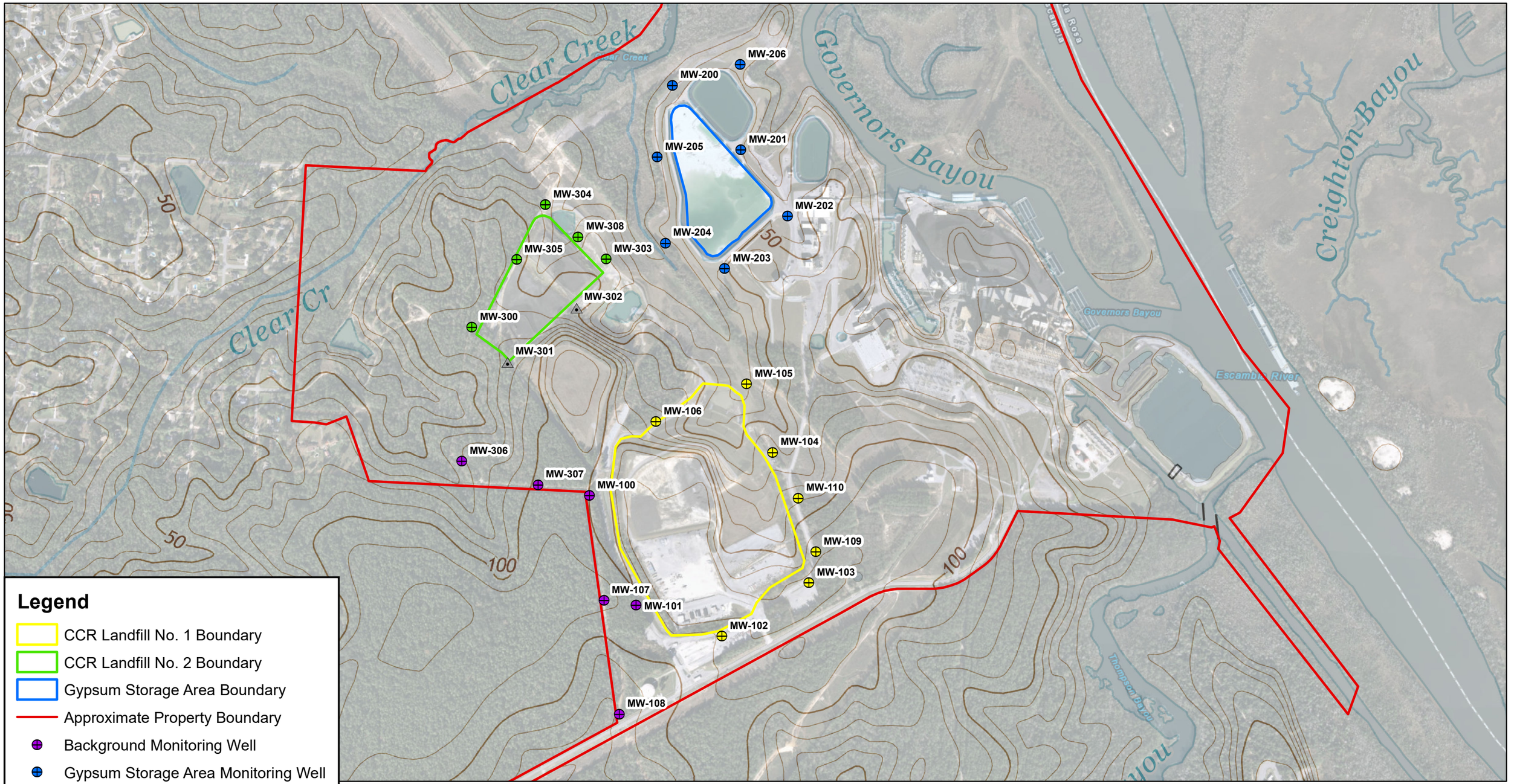
Southern Company Services
Earth Science and Environmental Engineering

FOR

Gulf Power Company

FIGURE 1
SITE LOCATION MAP
PLANT CRIST, PENSACOLA, FLORIDA

Drawing Number ES4041S1



Legend

- CCR Landfill No. 1 Boundary
- CCR Landfill No. 2 Boundary
- Gypsum Storage Area Boundary
- Approximate Property Boundary
- Background Monitoring Well
- Gypsum Storage Area Monitoring Well
- CCR Landfill No. 1 Monitoring Well
- CCR Landfill No. 2 Monitoring Well
- Piezometer

N

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

1 inch = 800 feet

NOTES:
1. TOPOGRAPHIC CONTOUR INTERVAL IS 10 FEET.
2. ALL BOUNDARIES ARE APPROXIMATE.

REFERENCES:
1. USGS 7.5 MINUTE QUADRANGLE, PACE, FL 2015.
2. PROPERTY BOUNDARY LINE MODIFIED FROM THE GULF POWER LAND DEPARTMENT.

Copyright © 2017 Southern Company Services, Inc. All Rights Reserved.
This document contains proprietary, confidental, and/or trade secret information of the subsidiaries of The Southern Company or of third parties. It is intended for use only by employees of, or authorized contractors of, the subsidiaries of the Southern Company. Unauthorized possession, use, distribution, copying, dissemination, or disclosure of any portion is prohibited.

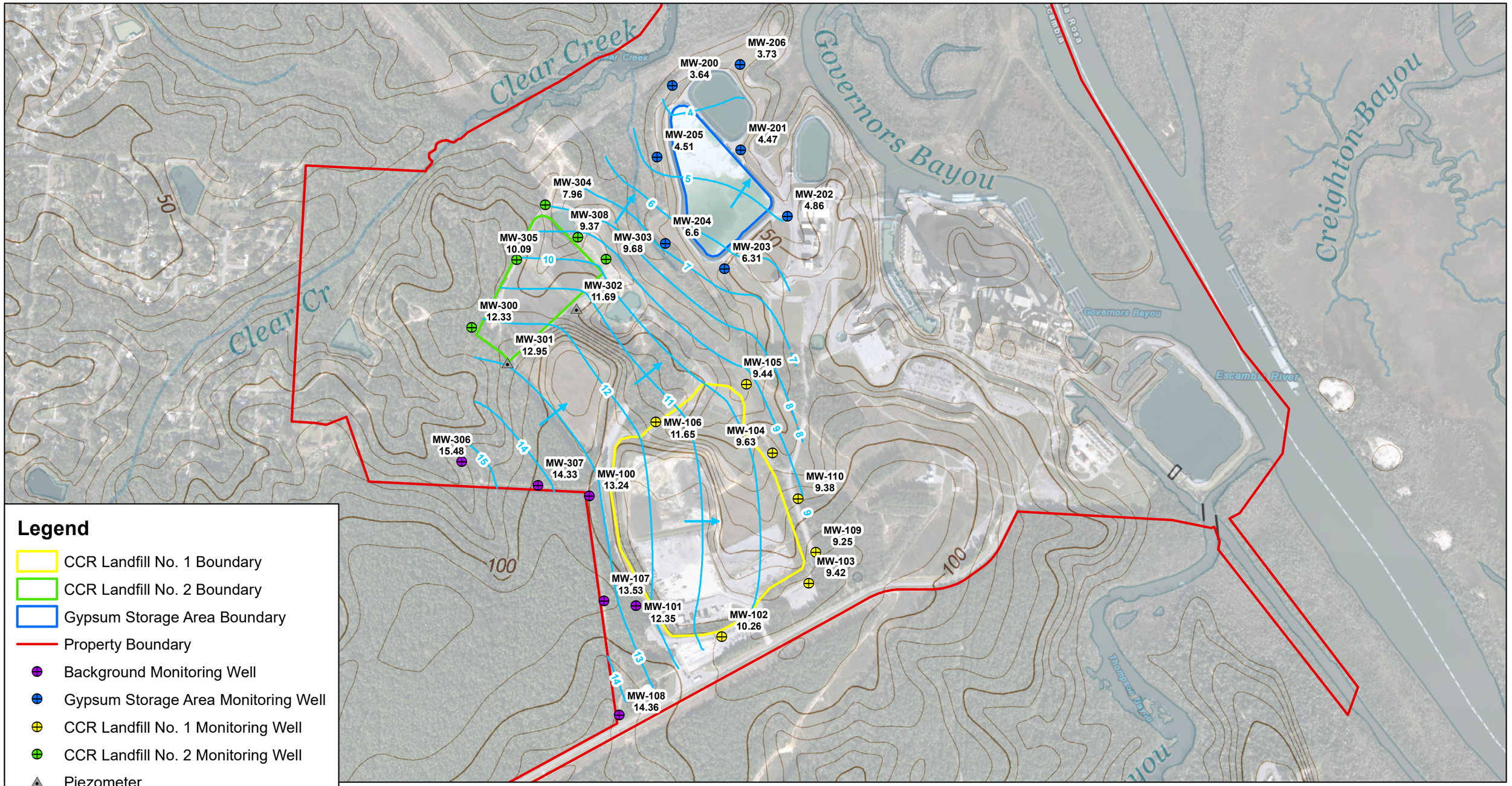
FIGURE 2
WELL LOCATION MAP
PLANT CRIST, PENSACOLA, FLORIDA

Southern Company Services
Earth Science and Environmental Engineering

FOR

Gulf Power Company

Drawing Number ES4041S2



Legend

- CCR Landfill No. 1 Boundary
- CCR Landfill No. 2 Boundary
- Gypsum Storage Area Boundary
- Property Boundary
- Background Monitoring Well
- Gypsum Storage Area Monitoring Well
- CCR Landfill No. 1 Monitoring Well
- CCR Landfill No. 2 Monitoring Well
- Piezometer
- Estimated Potentiometric Surface
- Estimated Groundwater Flow Direction

N

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

1 inch = 800 feet

REFERENCES:
1. USGS 7.5 MINUTE QUADRANGLE, PACE, FL 2015.
2. PROPERTY BOUNDARY LINE MODIFIED FROM THE GULF POWER LAND DEPARTMENT.

NOTES:
1. TOPOGRAPHIC CONTOUR INTERVAL IS 10 FEET.
2. ALL BOUNDARIES ARE APPROXIMATE.
3. GROUNDWATER ELEVATIONS AND CONTOURS ARE IN FEET RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

Copyright © 2017 Southern Company Services, Inc. All Rights Reserved.
This document contains proprietary, confidental, and/or trade secret information of the subsidiaries of The Southern Company or of third parties. It is intended for use only by employees of, or authorized contractors of, the subsidiaries of the Southern Company. Unauthorized possession, use, distribution, copying, dissemination, or disclosure of any portion is prohibited.

Southern Company Services
Earth Science and Environmental Engineering

FOR

Gulf Power Company

FIGURE 3
POTENTIOMETRIC SURFACE CONTOUR MAP - OCTOBER 2017
PLANT CRIST, PENSACOLA, FLORIDA

Drawing Number ES4041S3

APPENDIX A
LABORATORY ANALYTICAL AND FIELD SAMPLING REPORTS

FIELD SAMPLING REPORTS

BACKGROUND SAMPLING EVENTS

FEBRUARY 2016 - MAY 2017

Product Name: Low-Flow System

Date: 2016-02-29 14:13:16

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-1	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	90.66 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	13:50:10	300.02	21.43	5.11	38.31	0.37	90.66	7.98	76.56
Last 5	13:55:10	600.02	21.45	5.11	38.14	0.44	90.66	7.94	77.12
Last 5	14:00:10	900.02	21.64	5.14	38.31	0.37	90.66	7.92	76.97
Last 5	14:05:10	1200.02	21.12	5.13	38.16	0.31	90.66	7.94	77.31
Last 5	14:10:10	1500.02	20.92	5.11	38.13	0.39	90.66	7.96	77.74
Variance 0			0.19	0.03	0.17			-0.02	-0.15
Variance 1			-0.52	-0.01	-0.15			0.03	0.34
Variance 2			-0.20	-0.02	-0.04			0.02	0.43

Notes

Sample@1315 , partly cloudy. 72

Grab Samples

Product Name: Low-Flow System

Date: 2016-02-29 14:34:25

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 background -1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	96.45 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	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:13:33	300.02	21.10	5.13	29.80	0.41	96.45	8.63	72.03
Last 5	14:18:33	600.02	21.14	5.20	30.03	0.45	96.45	8.58	70.87
Last 5	14:23:33	900.02	21.06	5.24	30.16	0.25	96.45	8.61	70.87
Last 5	14:28:33	1200.03	21.19	5.26	30.05	0.18	96.45	8.54	71.98
Last 5									
Variance 0			0.04	0.08	0.23			-0.05	-1.16
Variance 1			-0.09	0.04	0.14			0.02	0.01
Variance 2			0.13	0.02	-0.11			-0.07	1.10

Notes

Sample@1433, Dup-01@ 1333, partly cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 13:44:01

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 Background-1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	124 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7734645 L
Well Total Depth	120.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	102.49 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	13:21:03	600.02	21.99	5.01	33.21	2.64	102.52	8.30	108.45
Last 5	13:26:03	900.02	21.86	5.01	33.27	1.56	102.52	8.32	104.63
Last 5	13:31:03	1200.02	21.77	5.04	33.77	1.07	102.52	8.28	100.22
Last 5	13:36:03	1500.02	21.64	5.05	33.85	0.91	102.52	8.32	96.93
Last 5	13:41:03	1800.02	21.61	5.03	33.43	0.87	102.52	8.33	96.04
Variance 0			-0.09	0.03	0.51			-0.04	-4.41
Variance 1			-0.13	0.02	0.07			0.04	-3.30
Variance 2			-0.03	-0.03	-0.42			0.02	-0.89

Notes

Sample @1343. Partly sunny 72

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 12:07:41

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 Background-1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	124 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7734645 L
Well Total Depth	120.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	112.2 ft	Total Volume Pumped	34 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	11:43:22	3900.03	21.62	5.88	161.08	7.72	112.25	4.69	56.43
Last 5	11:48:22	4200.05	21.59	5.90	161.09	6.23	112.25	4.66	55.55
Last 5	11:53:22	4500.03	21.59	5.87	160.76	5.15	112.25	4.72	57.72
Last 5	11:58:22	4800.02	21.64	5.88	160.25	4.79	112.25	4.88	57.96
Last 5	12:03:22	5100.02	21.64	5.86	160.29	4.62	112.25	4.89	59.63
Variance 0			-0.00	-0.03	-0.33			0.06	2.17
Variance 1			0.05	0.02	-0.51			0.16	0.24
Variance 2			-0.01	-0.03	0.04			0.01	1.68

Notes

Sample@1206, Dup-02@1106, FB-01@1130 Partly cloudy 66

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 14:56:06

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 Background-1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	85 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.599391 L
Well Total Depth	83.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	59.15 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	14:34:29	300.07	22.17	4.10	1371.38	22.40	59.13	6.20	396.32
Last 5	14:39:29	600.03	22.26	4.09	1413.15	8.98	59.13	6.17	436.13
Last 5	14:44:29	900.03	22.29	4.09	1442.60	7.70	59.13	6.15	458.92
Last 5	14:49:29	1200.02	22.26	4.09	1459.33	3.55	59.13	6.13	466.91
Last 5	14:54:29	1500.02	22.44	4.09	1470.15	2.81	59.13	6.10	468.21
Variance 0			0.02	-0.00	29.45			-0.02	22.79
Variance 1			-0.03	0.00	16.73			-0.02	7.99
Variance 2			0.18	0.00	10.82			-0.03	1.30

Notes

Sample @1455 Partly cloudy 72

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 13:06:58

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-1	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	42 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38.2 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4074638 L
Well Total Depth	43.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	21.30 ft	Total Volume Pumped	56 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:43:48	7213.01	21.72	6.13	541.66	26.50	21.30	0.18	-4.55
Last 5	12:48:48	7513.01	21.71	6.13	542.36	24.40	21.30	0.03	-4.86
Last 5	12:53:48	7813.02	21.65	6.14	543.09	24.70	21.30	0.03	-5.39
Last 5	12:58:48	8113.01	21.72	6.13	541.59	22.00	21.30	0.03	-5.38
Last 5	13:03:48	8413.01	21.72	6.12	536.63	19.70	21.30	0.03	-5.51
Variance 0			-0.05	0.01	0.73			0.00	-0.53
Variance 1			0.07	-0.01	-1.51			-0.00	0.01
Variance 2			-0.00	-0.01	-4.96			-0.00	-0.13

Notes

Temp-73 precip. None sampled@1310

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 10:00:17

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-1	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	90 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	87.8 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.621708 L
Well Total Depth	92.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.96 in
Depth to Water	66.97 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:17:47	1200.01	21.10	5.63	31.47	2.50	67.04	3.36	55.11
Last 5	09:22:47	1500.01	21.10	5.67	31.91	2.21	67.04	3.14	51.09
Last 5	09:27:47	1800.01	21.10	5.75	33.29	1.78	67.05	2.97	49.08
Last 5	09:32:47	2100.01	21.16	5.80	33.93	1.32	67.05	3.04	47.87
Last 5	09:37:47	2400.01	21.13	5.84	34.61	1.44	67.05	3.03	48.43
Variance 0			0.00	0.09	1.38			-0.17	-2.01
Variance 1			0.06	0.04	0.64			0.07	-1.21
Variance 2			-0.04	0.04	0.69			-0.01	0.57

Notes

Temp.68 precip. None. sampled@0945

Grab Samples

Product Name: Low-Flow System

Date: 2016-02-29 12:26:21

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-1	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	123.7 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	102.11 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	12:04:17	600.02	21.32	5.13	34.16	3.69	102.16	8.63	77.91
Last 5	12:09:17	900.03	21.42	5.14	34.06	0.87	102.16	8.57	78.90
Last 5	12:14:17	1200.02	21.71	5.12	33.97	1.16	102.16	8.59	81.20
Last 5	12:19:17	1500.03	21.68	5.11	33.93	0.44	102.16	8.57	82.88
Last 5	12:24:17	1800.02	21.64	5.11	33.91	0.49	102.16	8.60	82.90
Variance 0			0.30	-0.02	-0.08			0.02	2.30
Variance 1			-0.03	-0.01	-0.04			-0.02	1.68
Variance 2			-0.04	-0.00	-0.03			0.02	0.02

Notes

Sample@1225, Partly cloudy -72

Grab Samples

Product Name: Low-Flow System

Date: 2016-02-29 11:19:14

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-1	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	97.9 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	70.31 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	10:55:22	300.06	21.06	4.91	42.45	1.19	70.30	8.04	96.86
Last 5	11:00:22	600.02	20.96	4.91	42.91	0.98	70.30	8.21	93.99
Last 5	11:05:22	900.03	21.01	4.90	43.01	0.75	70.30	8.22	92.44
Last 5	11:10:22	1200.03	21.00	4.91	43.05	0.64	70.30	8.24	91.27
Last 5	11:15:22	1500.02	20.84	4.90	43.04	0.51	70.30	8.28	90.53
Variance 0			0.06	-0.00	0.10			0.01	-1.55
Variance 1			-0.01	0.01	0.04			0.02	-1.17
Variance 2			-0.16	-0.01	-0.01			0.03	-0.74

Notes

Sample@1116, sunny -70

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 11:09:50

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-1	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	135 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	128.3 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133.3 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	111.51 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:51:20	300.01	21.06	4.86	64.94	0.93	111.22	8.70	114.97
Last 5	10:56:20	600.01	21.05	4.86	63.94	0.76	111.14	8.53	118.79
Last 5	11:01:20	900.01	21.13	4.82	63.92	0.46	111.09	8.45	116.68
Last 5	11:06:20	1200.01	21.10	4.84	63.36	0.36	111.13	8.52	114.50
Last 5									
Variance 0			-0.00	0.00	-1.00			-0.17	3.81
Variance 1			0.07	-0.04	-0.02			-0.08	-2.11
Variance 2			-0.03	0.02	-0.56			0.07	-2.17

Notes

Temp. 62. Precip. None sampled@1110. Dup-03@1010

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 09:44:49

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-1	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	116 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	113.8 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7377571 L
Well Total Depth	118.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.6 in
Depth to Water	81.81 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:20:49	1800.01	21.05	5.15	720.42	4.19	81.86	3.06	132.52
Last 5	09:25:49	2100.01	21.13	5.16	751.86	3.76	81.86	2.93	130.48
Last 5	09:30:49	2400.01	21.15	5.16	773.79	2.05	81.86	2.90	129.06
Last 5	09:35:49	2700.01	21.19	5.17	794.30	1.93	81.86	2.86	128.49
Last 5	09:40:49	3000.01	21.22	5.19	806.81	1.82	81.86	2.79	127.70
Variance 0			0.01	-0.00	21.94			-0.03	-1.42
Variance 1			0.04	0.01	20.51			-0.04	-0.57
Variance 2			0.03	0.02	12.50			-0.07	-0.78

Notes

Temp. 56 Precip. None. Sampled@0945

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 13:36:13

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP Background 1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.0 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	16.10 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	13:12:39	3300.03	21.19	5.13	5604.58	2.65	16.16	0.74	288.72
Last 5	13:17:39	3600.03	21.21	5.13	5776.99	2.12	16.16	0.72	288.01
Last 5	13:22:39	3900.04	21.28	5.14	5927.81	2.24	16.16	0.70	278.20
Last 5	13:27:39	4200.04	21.24	5.14	6054.17	1.98	16.16	0.68	273.32
Last 5	13:32:39	4500.04	21.31	5.14	6174.92	2.24	16.16	0.66	269.57
Variance 0			0.07	0.00	150.82			-0.02	-9.82
Variance 1			-0.04	0.00	126.36			-0.02	-4.87
Variance 2			0.07	0.00	120.75			-0.02	-3.76

Notes

Sample time 1335. sunny 64

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 15:18:31

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED bladder pump
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background 1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	59.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.33 in
Depth to Water	46.82 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	14:58:21	300.08	22.20	5.58	6410.81	1.19	47.15	0.29	132.60
Last 5	15:03:21	600.02	22.20	5.58	6376.36	0.93	47.15	0.30	124.85
Last 5	15:08:21	900.02	22.24	5.58	6456.15	1.14	47.15	0.38	119.78
Last 5	15:13:21	1200.02	22.18	5.57	6471.68	0.82	47.15	0.31	116.84
Last 5									
Variance 0			0.01	0.00	-34.44			0.01	-7.75
Variance 1			0.04	0.00	79.78			0.08	-5.08
Variance 2			-0.07	-0.01	15.54			-0.07	-2.93

Notes

Sample time 1517. Sunny 68.

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 18:19:41

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED bladder pump
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background 1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	59.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	50.55 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	17:54:40	1200.03	20.93	5.21	113.29	13.80	50.58	4.61	105.78
Last 5	17:59:40	1500.03	20.92	5.20	114.42	9.97	50.58	4.51	99.33
Last 5	18:04:40	1800.03	20.92	5.22	115.29	7.43	50.58	4.41	93.57
Last 5	18:09:40	2100.03	20.93	5.24	115.99	4.58	50.58	4.55	88.96
Last 5	18:14:40	2400.03	20.88	5.24	117.30	3.65	50.58	4.47	87.06
Variance 0			-0.00	0.02	0.88			-0.10	-5.76
Variance 1			0.01	0.03	0.69			0.14	-4.61
Variance 2			-0.05	-0.00	1.31			-0.09	-1.90

Notes

Sample time 1817. EB-02 sample time 1835. FB-02 sample time 1840. Sunset 64.

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-03 10:05:14

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	44.14 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:40:54	3602.01	20.95	4.86	334.59	5.60	43.14	5.13	122.50
Last 5	09:45:54	3902.01	20.96	4.90	332.93	5.33	43.14	5.39	123.04
Last 5	09:50:54	4202.01	20.92	4.88	343.25	4.87	43.14	5.26	126.09
Last 5	09:55:54	4502.01	20.96	4.89	342.15	4.23	43.14	5.19	128.01
Last 5	10:00:54	4802.01	20.97	4.88	346.92	3.73	43.14	5.26	130.82
Variance 0			-0.04	-0.02	10.32			-0.13	3.04
Variance 1			0.04	0.01	-1.10			-0.07	1.92
Variance 2			0.00	-0.00	4.77			0.07	2.81

Notes

Temp. 65 Precip. None sampled@ 1010

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 14:18:52

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27.0 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3762198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	16.8 in
Depth to Water	12.39 ft	Total Volume Pumped	34 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:29:09	3907.01	19.61	4.96	1185.82	0.79	13.89	0.11	91.79
Last 5	13:34:09	4207.01	19.62	4.98	1183.86	0.67	13.88	0.11	86.11
Last 5	13:39:09	4507.01	19.54	5.00	1185.43	0.73	13.88	0.11	81.08
Last 5	13:44:12	4810.02	19.42	5.01	1183.07	0.76	13.89	0.12	76.61
Last 5	13:49:14	5112.01	19.45	5.05	1183.20	0.77	13.89	0.10	71.81
Variance 0			-0.09	0.03	1.58			0.00	-5.03
Variance 1			-0.12	0.01	-2.36			0.00	-4.47
Variance 2			0.03	0.04	0.12			-0.01	-4.80

Notes

Temp. 64. Precip. None. Sampled@1355. Dup-03@1255

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 15:22:38

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	PP
Company Name	RDH ENV	Tubing Type	pe
Project Name	BG-1 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	33 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27.8 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.237293 L
Well Total Depth	32.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.48 in
Depth to Water	15.44 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:00:14	600.01	20.00	5.43	168.78	0.42	15.48	2.37	19.70
Last 5	15:05:14	900.01	20.12	5.41	161.47	0.31	15.48	2.42	31.54
Last 5	15:10:14	1200.01	20.12	5.40	156.78	0.37	15.48	2.42	40.06
Last 5	15:15:14	1500.01	19.99	5.39	155.75	0.33	15.48	2.43	44.05
Last 5	15:20:18	1804.01	19.94	5.42	157.58	0.34	15.48	2.39	40.83
Variance 0			0.00	-0.01	-4.68			0.01	8.51
Variance 1			-0.13	-0.01	-1.04			0.01	4.00
Variance 2			-0.05	0.03	1.83			-0.04	-3.22

Notes

Temp. 66 precip. None. Sampled@ 1525

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-02 16:48:24

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	Peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background 1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	38.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	25.12 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	16:26:40	300.02	22.44	4.62	14824.08	0.82	25.18	0.19	163.67
Last 5	16:31:40	600.02	22.40	4.64	14983.87	0.97	25.19	0.12	154.40
Last 5	16:36:40	900.03	22.28	4.64	15090.64	0.89	25.19	0.11	150.19
Last 5	16:41:40	1200.03	22.21	4.62	15210.93	0.82	25.19	0.09	145.21
Last 5									
Variance 0			-0.05	0.02	159.79			-0.08	-9.26
Variance 1			-0.11	-0.00	106.77			-0.01	-4.22
Variance 2			-0.07	-0.01	120.29			-0.02	-4.98

Notes

Sample time 1647. Sunny 66

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-03 13:01:23

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	80 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	73.0 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5770739 L
Well Total Depth	78.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.04 in
Depth to Water	57.00 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:38:14	3000.01	20.01	5.11	42.14	6.91	57.16	4.45	103.37
Last 5	12:43:15	3301.01	20.25	5.13	42.08	6.31	57.16	4.42	103.84
Last 5	12:48:15	3601.01	20.26	5.12	42.05	6.11	57.16	4.44	104.97
Last 5	12:53:15	3901.01	20.12	5.13	42.23	5.91	57.16	4.47	105.89
Last 5	12:58:15	4201.01	20.14	5.11	41.58	3.60	57.17	4.44	106.53
Variance 0			0.01	-0.01	-0.03			0.02	1.13
Variance 1			-0.14	0.01	0.19			0.03	0.91
Variance 2			0.02	-0.02	-0.65			-0.02	0.64

Notes

Temp. 69. Precip. None sampled@1305

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-03 18:12:13

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED bladder pump
Company Name	RDH Env	Tubing Type	PE
Project Name	L/F-2 background 1	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	65 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58.0 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	34.91 ft	Total Volume Pumped	36 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	17:48:19	4200.05	22.44	6.18	658.29	10.90	34.91	6.12	92.37
Last 5	17:53:19	4500.05	22.44	6.18	658.35	9.38	34.91	6.03	89.48
Last 5	17:58:19	4800.05	22.45	6.16	660.83	8.58	34.91	5.88	86.93
Last 5	18:03:19	5100.05	22.48	6.16	661.78	8.63	34.91	5.80	84.01
Last 5	18:08:19	5400.05	22.46	6.16	660.38	8.08	34.91	5.79	81.43
Variance 0			0.01	-0.02	2.48			-0.16	-2.55
Variance 1			0.03	-0.00	0.96			-0.08	-2.91
Variance 2			-0.03	0.00	-1.40			-0.01	-2.58

Notes

Sample time 1812. Dup-04 fake time 1712. Cloudy 68

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-03 15:46:50

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	48.2 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	33.96 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:24:12	600.01	22.26	5.29	1592.02	14.60	33.95	0.26	96.66
Last 5	15:29:12	900.01	22.25	5.25	1590.61	6.08	33.97	0.15	88.62
Last 5	15:34:12	1200.01	22.25	5.21	1577.32	4.82	33.96	0.11	82.84
Last 5	15:39:12	1500.01	22.24	5.19	1570.48	2.37	33.96	0.08	77.58
Last 5	15:44:12	1800.07	22.21	5.18	1563.97	1.59	33.96	0.07	73.28
Variance 0			-0.00	-0.04	-13.30			-0.05	-5.78
Variance 1			-0.01	-0.02	-6.83			-0.02	-5.26
Variance 2			-0.02	-0.01	-6.51			-0.01	-4.30

Notes

Temp.69. Precip. None. Sampled@1550

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-03 14:24:00

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	68.1 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.84 in
Depth to Water	48.74 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:05:53	300.02	20.74	5.31	43.10	2.54	48.80	5.97	122.34
Last 5	14:10:53	600.01	20.67	5.33	43.55	2.10	48.81	5.95	112.70
Last 5	14:15:53	900.01	20.63	5.33	43.91	1.72	48.81	5.96	108.79
Last 5	14:20:53	1200.01	20.57	5.33	44.72	0.75	48.81	5.97	106.13
Last 5									
Variance 0			-0.07	0.02	0.45			-0.03	-9.64
Variance 1			-0.05	0.00	0.36			0.01	-3.90
Variance 2			-0.06	0.00	0.81			0.02	-2.66

Notes

Temp. 68. Precip. None sampled@1430

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 08:24:42

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-1	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.16 in
Depth to Water	55.95 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	07:58:56	300.06	19.00	5.14	35.82	3.71	56.11	6.30	95.08
Last 5	08:03:56	600.03	19.26	5.12	35.32	3.13	56.11	6.39	89.69
Last 5	08:08:56	900.02	19.30	5.09	34.73	1.91	56.11	6.66	86.43
Last 5	08:13:56	1200.02	19.37	5.07	34.54	1.27	56.11	6.77	85.13
Last 5	08:18:56	1500.02	19.45	5.08	34.46	1.14	56.11	6.80	83.86
Variance 0			0.04	-0.03	-0.58			0.26	-3.26
Variance 1			0.07	-0.02	-0.20			0.11	-1.30
Variance 2			0.09	0.01	-0.08			0.03	-1.27

Notes

Sample@0821, sunny 64

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-01 09:21:11

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-1	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	127 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7868547 L
Well Total Depth	123.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.58 in
Depth to Water	90.67 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	09:02:33	300.02	20.34	6.31	77.33	1.03	91.25	0.45	-18.86
Last 5	09:07:33	600.03	20.55	6.39	77.41	0.81	91.25	0.30	-24.83
Last 5	09:12:33	900.02	20.53	6.42	77.04	0.79	91.25	0.24	-26.08
Last 5	09:17:33	1200.02	20.66	6.37	74.30	0.75	91.25	0.20	-25.37
Last 5									
Variance 0			0.20	0.07	0.08			-0.15	-5.97
Variance 1			-0.02	0.03	-0.38			-0.06	-1.24
Variance 2			0.13	-0.05	-2.74			-0.04	0.70

Notes

Sample @0920, partly cloudy 66

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-03 17:12:51

Project Information:		Pump Information:	
Operator Name	Shane	Pump Model/Type	Bladder pump
Company Name	RDH ENV	Tubing Type	PE
Project Name	BG-1 LF-2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	58.1 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	33.15 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	+/- 0.3	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:49:15	300.02	21.29	6.41	871.13	2.39	33.24	0.41	75.87
Last 5	16:54:15	600.01	21.27	6.42	862.29	2.17	33.26	0.51	68.45
Last 5	16:59:15	900.01	21.25	6.43	857.54	3.27	33.25	0.55	62.46
Last 5	17:04:15	1200.01	21.27	6.42	844.31	1.38	33.25	0.64	57.78
Last 5	17:09:15	1500.01	21.24	6.42	840.89	1.32	33.25	0.63	53.19
Variance 0			-0.02	0.00	-4.76			0.04	-5.99
Variance 1			0.03	-0.00	-13.23			0.09	-4.68
Variance 2			-0.03	-0.00	-3.42			-0.01	-4.59

Notes

Temp. 67. Precip. None. EB-03@1620. FB-03@1635 sampled@1715

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-02 12:22:36

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	89.64 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	12:00:55	300.03	25.00	5.15	40.03	1.69	89.64	7.85	116.89
Last 5	12:05:55	600.03	25.53	4.81	39.83	1.43	89.64	7.96	123.79
Last 5	12:10:55	900.02	25.69	4.82	39.87	1.38	89.64	8.00	123.46
Last 5	12:15:55	1200.02	25.80	4.76	39.80	1.33	89.64	7.98	126.57
Last 5	12:20:55	1500.02	25.87	4.76	39.84	1.24	89.64	7.99	126.55
Variance 0			0.15	0.01	0.04			0.04	-0.33
Variance 1			0.12	-0.06	-0.06			-0.02	3.11
Variance 2			0.06	0.00	0.03			0.00	-0.01

Notes

Sample@1221 cloudy 79

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 12:05:13

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.3 in
Depth to Water	94.65 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	11:44:07	300.05	20.81	5.07	26.80	8.71	94.81	9.07	57.74
Last 5	11:49:07	600.01	20.89	5.07	27.01	3.49	94.88	8.89	62.71
Last 5	11:54:07	900.01	20.87	5.08	27.02	2.32	94.88	8.85	66.71
Last 5	11:59:07	1200.01	21.05	5.10	26.86	1.18	94.88	8.78	72.36
Last 5									
Variance 0			0.08	-0.00	0.21			-0.18	4.97
Variance 1			-0.01	0.02	0.01			-0.04	4.00
Variance 2			0.18	0.01	-0.17			-0.07	5.65

Notes

EB-02@1055

Sampled@1208 temperature 71 precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-05 08:47:30

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 Background-2	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	100.75 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	08:31:10	300.07	21.19	5.20	38.29	19.60	100.78	8.73	127.71
Last 5	08:36:10	600.02	21.10	5.05	38.50	7.23	100.78	8.79	123.05
Last 5	08:41:10	900.02	21.19	5.03	38.43	4.72	100.78	8.77	120.46
Last 5	08:46:10	1200.02	21.19	5.03	38.45	3.87	100.78	8.78	118.55
Last 5									
Variance 0			-0.09	-0.15	0.21			0.06	-4.65
Variance 1			0.08	-0.02	-0.07			-0.02	-2.59
Variance 2			0.00	-0.01	0.02			0.01	-1.91

Notes

Sample@0846. Sunny 68

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-05 10:15:32

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 Background-2	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	111.09 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%	+/- 5		+/- 0.2	+/- 10
Last 5	09:54:09	1800.02	21.59	5.69	157.09	12.00	111.11	6.86	97.05
Last 5	09:59:09	2100.02	21.60	5.76	159.91	7.66	111.11	6.73	93.50
Last 5	10:04:09	2400.02	21.64	5.77	160.84	6.24	111.11	6.72	93.11
Last 5	10:09:09	2700.03	21.64	5.78	162.33	5.45	111.11	6.64	91.75
Last 5	10:14:09	3000.02	21.66	5.77	163.40	2.61	111.11	6.58	91.52
Variance 0			0.03	0.01	0.93			-0.01	-0.39
Variance 1			0.00	0.01	1.49			-0.08	-1.35
Variance 2			0.02	-0.01	1.07			-0.06	-0.23

Notes

Sample@1014 , Sunny 70

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-05 10:31:41

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	90 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.621708 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.3 in
Depth to Water	58.44 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	10:07:14	600.01	22.49	4.12	922.43	14.40	58.45	6.44	444.42
Last 5	10:12:14	900.01	22.57	4.12	928.91	9.34	58.45	6.40	507.95
Last 5	10:17:14	1200.01	22.62	4.12	935.86	6.26	58.45	6.36	516.59
Last 5	10:22:14	1500.01	22.64	4.12	945.70	4.03	58.45	6.32	523.75
Last 5	10:27:14	1800.01	22.71	4.12	958.26	3.91	58.45	6.23	515.81
Variance 0			0.05	-0.00	6.96			-0.04	8.64
Variance 1			0.02	0.00	9.83			-0.04	7.15
Variance 2			0.07	0.00	12.56			-0.08	-7.93

Notes

Sampled@1035 EB-03@0940 FB-03@1020

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-05 08:56:38

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	pp
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	50 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3131711 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.3 in
Depth to Water	20.77 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	08:35:14	600.01	19.50	6.25	459.70	7.35	20.80	0.11	15.57
Last 5	08:40:14	900.01	19.59	6.25	463.59	6.36	20.80	0.10	13.24
Last 5	08:45:14	1200.01	19.64	6.29	459.94	7.64	20.80	0.09	11.35
Last 5	08:50:14	1500.01	19.69	6.27	459.58	6.40	20.80	0.10	10.68
Last 5	08:55:14	1800.01	19.77	6.25	456.85	4.46	20.80	0.09	10.00
Variance 0			0.04	0.04	-3.65			-0.01	-1.90
Variance 1			0.05	-0.01	-0.37			0.00	-0.67
Variance 2			0.08	-0.02	-2.73			-0.01	-0.68

Notes

Sampled@0900 temperature 69 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 14:20:48

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.4 in
Depth to Water	66.02 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%	+/- 5		+/- 0.2	+/- 10
Last 5	13:56:28	3002.01	21.73	5.65	28.46	0.63	66.06	4.91	93.22
Last 5	14:01:28	3302.01	21.63	5.66	28.74	0.64	66.06	4.90	93.18
Last 5	14:06:28	3602.01	21.95	5.68	28.86	0.63	66.06	4.92	93.09
Last 5	14:11:28	3902.01	21.95	5.67	28.87	0.61	66.06	4.89	94.32
Last 5	14:16:28	4202.01	21.83	5.69	29.10	0.60	66.06	4.89	94.72
Variance 0			0.32	0.02	0.12			0.02	-0.09
Variance 1			-0.00	-0.01	0.01			-0.03	1.23
Variance 2			-0.12	0.02	0.23			-0.00	0.40

Notes

Sampled@1425 FB-02@1440. Precipitation none temperature 76 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-02 11:03:24

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	123.7 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	100.72 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%	+/- 5		+/- 0.2	+/- 10
Last 5	10:41:02	300.03	23.87	4.74	36.18	8.05	100.75	8.86	149.54
Last 5	10:46:02	600.02	24.78	4.85	36.12	5.13	100.75	8.82	144.23
Last 5	10:51:02	900.02	25.02	4.83	35.94	3.36	100.75	8.76	141.91
Last 5	10:56:02	1200.02	25.10	4.82	35.89	2.54	100.75	8.76	141.08
Last 5	11:01:02	1500.03	25.14	4.77	35.92	2.28	100.75	8.76	139.83
Variance 0			0.24	-0.02	-0.18			-0.06	-2.32
Variance 1			0.07	-0.01	-0.05			0.00	-0.83
Variance 2			0.05	-0.04	0.04			-0.00	-1.26

Notes

Sample@1102, cloudy 80

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-02 09:48:48

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	97.9 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	68.51 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	09:26:56	300.10	23.81	4.72	43.82	8.30	68.55	8.56	144.70
Last 5	09:31:56	600.03	24.33	4.77	43.67	7.92	68.55	8.50	143.25
Last 5	09:36:56	900.04	24.51	4.78	43.52	5.24	68.55	8.50	144.08
Last 5	09:41:56	1200.03	24.53	4.72	43.44	3.67	68.55	8.51	146.38
Last 5	09:46:56	1500.02	24.62	4.69	43.41	2.64	68.55	8.49	147.49
Variance 0			0.18	0.01	-0.15			0.00	0.83
Variance 1			0.02	-0.06	-0.08			0.01	2.30
Variance 2			0.09	-0.03	-0.03			-0.02	1.11

Notes

Sample@0947, DUP-01@0847. Cloudy 81

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-05 11:49:25

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-1 Background-2	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	135 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	110.45 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:26:19	900.02	23.45	5.30	80.18	1.09	110.46	8.04	111.24
Last 5	11:31:19	1200.02	22.29	5.07	86.65	0.59	110.46	8.47	112.62
Last 5	11:36:19	1500.03	22.35	4.94	92.34	0.81	110.46	8.53	113.95
Last 5	11:41:19	1800.03	22.19	4.89	94.01	0.75	110.46	8.60	113.88
Last 5	11:46:19	2100.02	22.35	4.87	96.02	0.62	110.46	8.61	113.97
Variance 0			0.06	-0.13	5.68			0.06	1.33
Variance 1			-0.15	-0.04	1.67			0.07	-0.08
Variance 2			0.16	-0.02	2.01			0.02	0.09

Notes

Sample@1147, DUP-04@1047. Sunny 73

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-05 12:25:04

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	130 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.800245 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.5 in
Depth to Water	80.79 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	12:02:48	2100.01	21.86	5.02	706.06	11.03	80.84	4.89	177.04
Last 5	12:07:48	2400.01	21.79	5.03	725.59	7.98	80.84	4.78	173.59
Last 5	12:12:48	2700.01	21.82	5.03	758.97	5.13	80.84	4.69	171.45
Last 5	12:17:48	3000.01	21.86	5.03	769.77	3.73	80.84	4.59	169.81
Last 5	12:22:50	3302.01	21.86	5.04	781.08	3.67	80.84	4.61	167.90
Variance 0			0.03	0.00	33.38			-0.09	-2.14
Variance 1			0.04	0.00	10.80			-0.10	-1.63
Variance 2			0.01	0.01	11.31			0.02	-1.91

Notes

Sampled@1230 temperature 73 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 09:08:22

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	GYP Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant Gyp	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3806832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	15.95 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	08:46:26	300.05	21.09	4.92	6739.20	10.50	15.98	0.30	153.98
Last 5	08:51:26	600.02	21.19	4.99	7384.23	7.27	15.98	0.25	148.88
Last 5	08:56:26	900.02	21.33	5.04	7711.69	5.51	15.98	0.21	144.50
Last 5	09:01:26	1200.03	21.42	5.08	7900.90	3.19	15.98	0.21	140.92
Last 5	09:06:26	1500.02	21.38	5.10	8044.92	2.91	15.98	0.20	137.79
Variance 0			0.14	0.05	327.46			-0.04	-4.37
Variance 1			0.09	0.03	189.22			-0.01	-3.58
Variance 2			-0.04	0.02	144.01			-0.01	-3.13

Notes

Sample@0907, DUP -02@0807. Cloudy73

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 09:02:03

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	47.08 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	08:40:04	600.01	22.31	5.60	4957.06	7.45	47.08	2.35	73.97
Last 5	08:45:04	900.01	22.31	5.60	5069.52	6.72	47.08	2.26	70.60
Last 5	08:50:04	1200.02	22.31	5.60	5263.80	4.93	47.08	2.14	70.38
Last 5	08:55:04	1500.01	22.30	5.61	5310.69	3.45	47.08	2.07	69.09
Last 5	09:00:06	1802.02	22.27	5.62	5319.75	3.07	47.08	2.06	68.60
Variance 0			-0.00	-0.00	194.28			-0.13	-0.22
Variance 1			-0.01	0.01	46.89			-0.07	-1.29
Variance 2			-0.03	0.01	9.06			-0.01	-0.49

Notes

Sampled@0905 temperature 69 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 15:34:17

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	70 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	50.16 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%	+/- 5		+/- 0.2	+/- 10
Last 5	15:12:48	1800.01	22.19	4.80	112.95	9.45	50.20	3.02	103.58
Last 5	15:17:48	2100.01	22.09	4.81	111.72	7.39	50.20	2.97	102.05
Last 5	15:22:48	2400.01	22.08	4.81	110.90	6.21	50.20	2.87	101.79
Last 5	15:27:48	2700.01	22.10	4.82	113.17	5.31	50.20	2.83	103.63
Last 5	15:32:48	3000.01	22.10	4.83	115.62	4.42	50.20	2.75	105.45
Variance 0			-0.00	0.00	-0.82			-0.10	-0.25
Variance 1			0.02	0.00	2.28			-0.05	1.83
Variance 2			-0.00	0.01	2.45			-0.08	1.82

Notes

EB-01@1255

Sampled@1540 temperature 80 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 12:32:13

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	BP
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 2	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	70 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	43.97 ft	Total Volume Pumped	34 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	12:02:24	3603.01	22.36	4.79	224.16	0.73	44.00	1.94	-22.84
Last 5	12:12:26	4205.01	22.13	4.79	235.46	0.75	44.00	1.37	-12.80
Last 5	12:17:26	4505.01	22.18	4.78	238.75	0.69	44.00	2.79	-9.78
Last 5	12:22:26	4805.01	22.22	4.78	240.98	0.73	44.00	2.89	-7.24
Last 5	12:27:26	5105.01	22.31	4.78	243.08	0.71	44.00	2.87	-3.90
Variance 0			0.04	-0.01	3.29			1.42	3.01
Variance 1			0.04	-0.00	2.23			0.10	2.54
Variance 2			0.09	-0.00	2.09			-0.02	3.34

Notes

Sampled@1235 FB-01@1120 temperature 78 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 11:36:53

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	GYP Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant Gyp	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3762198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	13 in
Depth to Water	12.4 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:23:24	300.02	20.17	4.81	1331.70	4.95	13.53	0.08	136.60
Last 5	11:28:24	600.02	20.21	4.80	1342.96	3.33	13.53	0.08	131.77
Last 5	11:33:24	900.02	20.31	4.79	1349.59	2.17	13.53	0.08	128.79
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.04	-0.01	11.26			-0.00	-4.83
Variance 2			0.10	-0.01	6.63			0.01	-2.98

Notes

Sample@1135, cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 13:03:11

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	GYP Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant Gyp	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3762198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	15.41 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%	+/- 5		+/- 0.2	+/- 10
Last 5	12:39:50	1800.02	21.50	5.78	297.31	0.43	15.41	1.11	87.68
Last 5	12:44:50	2100.02	21.55	5.78	295.90	0.56	15.41	1.12	87.85
Last 5	12:49:50	2400.02	21.32	5.78	291.86	0.62	15.41	1.15	88.92
Last 5	12:54:50	2700.02	21.19	5.77	292.11	0.58	15.41	1.16	88.68
Last 5	12:59:50	3000.02	21.59	5.77	290.69	0.51	15.41	1.16	88.66
Variance 0			-0.23	-0.00	-4.04			0.03	1.07
Variance 1			-0.13	-0.00	0.25			0.01	-0.24
Variance 2			0.40	-0.01	-1.42			0.01	-0.02

Notes

Sample@1302 cloudy 81

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 10:12:21

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	GYP Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant Gyp	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3985369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	24.9 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:59:03	300.03	22.35	4.25	15942.15	2.64	24.94	0.15	147.28
Last 5	10:04:03	600.02	22.36	4.25	16007.25	1.34	24.94	0.15	141.83
Last 5	10:09:03	900.03	22.44	4.26	15903.33	1.01	24.94	0.13	139.09
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.01	0.01	65.10			-0.01	-5.45
Variance 2			0.08	0.01	-103.91			-0.01	-2.73

Notes

Sample @ 1011, cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 11:11:02

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant LF-2	Tubing Length	82 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	75 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5860007 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.25 in
Depth to Water	56.21 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	10:49:23	1200.03	23.82	5.12	49.55	1.32	56.46	4.72	78.89
Last 5	10:54:23	1500.03	23.83	5.15	49.78	1.47	56.46	4.65	79.02
Last 5	10:59:23	1800.03	24.04	5.17	49.85	1.52	56.46	4.58	78.65
Last 5	11:04:23	2100.02	24.08	5.14	49.12	1.49	56.46	4.60	81.18
Last 5	11:09:23	2400.02	24.04	5.13	48.50	1.42	56.46	4.57	83.17
Variance 0			0.21	0.02	0.07			-0.07	-0.37
Variance 1			0.03	-0.03	-0.72			0.02	2.53
Variance 2			-0.04	-0.02	-0.62			-0.02	1.99

Notes

Sample@1110 partly cloudy 70

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 09:51:10

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	34.72 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	09:27:56	600.03	25.69	6.66	691.80	1.47	34.76	5.29	71.61
Last 5	09:32:56	900.02	25.88	6.50	736.09	1.29	34.76	4.95	75.32
Last 5	09:37:56	1200.03	25.91	6.41	764.78	1.42	34.76	4.75	77.58
Last 5	09:42:56	1500.03	25.81	6.34	784.36	1.67	34.76	4.66	79.28
Last 5	09:47:56	1800.03	25.78	6.30	791.61	1.53	34.76	4.64	79.92
Variance 0			0.03	-0.09	28.70			-0.21	2.26
Variance 1			-0.10	-0.07	19.58			-0.09	1.70
Variance 2			-0.04	-0.04	7.25			-0.02	0.65

Notes

Sample@0949 sunny 70

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 07:21:22

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant LF-2	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	33.39 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	06:56:11	300.06	23.16	5.06	1671.98	1.71	33.42	0.08	89.38
Last 5	07:01:11	600.02	23.22	5.07	1664.60	2.31	33.42	0.06	82.12
Last 5	07:06:11	900.03	23.37	5.04	1665.76	2.51	33.42	0.05	78.83
Last 5	07:11:11	1200.03	23.47	5.02	1666.92	1.98	33.42	0.04	76.31
Last 5	07:16:11	1500.02	23.38	5.00	1678.52	1.63	33.42	0.03	73.43
Variance 0			0.15	-0.03	1.16			-0.01	-3.29
Variance 1			0.10	-0.02	1.16			-0.00	-2.52
Variance 2			-0.08	-0.02	11.61			-0.01	-2.88

Notes

Sample @0716, DUP-03@0616, Sunny 63

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 13:02:16

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant LF-2	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	48.18 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	12:40:23	600.02	24.51	5.16	42.79	1.24	48.18	5.97	103.43
Last 5	12:45:23	900.02	24.96	5.13	43.74	1.13	48.18	6.03	102.63
Last 5	12:50:23	1200.02	24.77	5.12	44.37	0.74	48.18	6.10	102.14
Last 5	12:55:23	1500.02	24.73	5.12	44.76	0.84	48.18	6.04	102.22
Last 5	13:00:23	1800.02	24.82	5.13	45.24	0.96	48.18	6.04	102.71
Variance 0			-0.19	-0.02	0.64			0.07	-0.48
Variance 1			-0.04	0.00	0.38			-0.06	0.08
Variance 2			0.09	0.01	0.48			-0.00	0.48

Notes

Sample @1301 partly cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-03 07:26:28

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.25 in
Depth to Water	55 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	07:09:28	300.07	22.80	5.20	37.60	0.69	55.25	7.38	138.15
Last 5	07:14:28	600.03	22.99	5.19	37.27	0.56	55.25	7.36	134.34
Last 5	07:19:28	900.02	23.09	5.17	36.95	0.63	55.25	7.36	132.23
Last 5	07:24:28	1200.02	23.13	5.14	36.32	0.59	55.25	7.50	130.98
Last 5									
Variance 0			0.19	-0.01	-0.32			-0.03	-3.81
Variance 1			0.10	-0.02	-0.32			0.01	-2.11
Variance 2			0.04	-0.02	-0.63			0.14	-1.25

Notes

Sample@0724 cloudy-70

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-02 14:59:04

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	16 in
Depth to Water	89.77 ft	Total Volume Pumped	360 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	14:36:40	4200.02	26.35	5.61	44.40	0.95	91.21	4.23	53.92
Last 5	14:41:40	4500.02	26.42	5.60	43.32	0.91	91.21	4.34	58.33
Last 5	14:46:40	4800.03	26.41	5.61	43.67	0.84	91.21	4.44	57.71
Last 5	14:51:40	5100.02	26.37	5.60	42.41	0.88	91.21	4.64	61.05
Last 5	14:56:40	5400.03	26.39	5.60	42.85	0.95	91.21	4.61	62.34
Variance 0			-0.01	0.01	0.36			0.10	-0.62
Variance 1			-0.04	-0.01	-1.27			0.19	3.34
Variance 2			0.02	-0.00	0.44			-0.03	1.28

Notes

Sample@1457 cloudy 81

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-04 08:51:13

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-2	Tubing Diameter	.17 in
Site Name	Crist Plant LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	32.90 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%	+/- 10		+/- 0.2	+/- 10
Last 5	08:27:07	1500.03	23.54	6.35	1168.85	0.74	32.95	0.46	28.72
Last 5	08:32:07	1800.02	23.54	6.35	1186.33	0.71	32.95	0.46	19.94
Last 5	08:37:07	2100.03	23.58	6.34	1188.74	0.84	32.95	0.47	11.14
Last 5	08:42:07	2400.02	23.66	6.35	1191.49	0.58	32.95	0.48	6.45
Last 5	08:47:07	2700.02	23.61	6.35	1193.53	0.61	32.95	0.49	3.81
Variance 0			0.04	-0.01	2.42			0.01	-8.80
Variance 1			0.08	0.00	2.75			0.01	-4.69
Variance 2			-0.05	0.00	2.03			0.01	-2.65

Notes

Sample@0848, sunny 66

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 11:36:39

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	89.85 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%	+/- 10		+/- 0.2	+/- 10
Last 5	11:15:30	1500.02	24.24	5.22	35.84	0.51	89.90	8.20	67.80
Last 5	11:20:30	1800.02	24.42	5.19	35.83	0.55	89.90	8.22	68.38
Last 5	11:25:30	2100.02	24.53	5.18	35.65	0.56	89.90	8.15	68.71
Last 5	11:30:30	2400.02	24.69	5.14	35.62	0.61	89.90	8.19	68.85
Last 5	11:35:30	2700.02	24.63	5.12	35.35	0.53	89.90	8.16	68.97
Variance 0			0.11	-0.01	-0.18			-0.07	0.33
Variance 1			0.16	-0.04	-0.03			0.04	0.14
Variance 2			-0.06	-0.02	-0.28			-0.03	0.13

Notes

Sample@1135. Sunny 90

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-08 15:34:31

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	128 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7913182 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.08 in
Depth to Water	95.36 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	15:10:26	600.01	23.65	4.94	25.93	0.62	95.42	8.87	88.81
Last 5	15:15:26	900.01	23.21	4.94	25.86	0.81	95.44	8.98	91.35
Last 5	15:20:26	1200.01	22.94	4.96	25.95	0.48	95.44	9.00	93.63
Last 5	15:25:26	1500.01	22.93	4.96	25.91	0.53	95.44	8.98	96.09
Last 5	15:30:26	1800.04	22.95	4.96	25.73	0.52	95.44	8.97	98.98
Variance 0			-0.27	0.02	0.09			0.01	2.28
Variance 1			-0.01	0.00	-0.04			-0.02	2.45
Variance 2			0.02	0.00	-0.18			-0.01	2.90

Notes

Sample time 1534. EB-04 1411. Dup-05 time 1434. P/C 93.

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 15:59:52

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	qed
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	130 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.800245 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.5 in
Depth to Water	101.40 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	15:37:08	2400.01	22.53	4.87	33.82	3.26	101.50	8.62	215.47
Last 5	15:42:08	2700.01	22.50	4.89	33.95	2.51	101.50	8.57	212.38
Last 5	15:47:10	3002.01	22.44	4.86	33.69	1.76	101.50	8.85	210.10
Last 5	15:52:16	3308.01	22.49	4.86	33.61	1.53	101.50	8.71	208.17
Last 5	15:57:16	3608.01	22.44	4.85	33.53	1.45	101.50	8.53	205.90
Variance 0			-0.05	-0.02	-0.26			0.28	-2.28
Variance 1			0.04	-0.00	-0.07			-0.14	-1.93
Variance 2			-0.05	-0.00	-0.09			-0.19	-2.27

Notes

Sampled @1605 precipitation none temperature 88 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 09:34:11

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF- 1Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	111.34 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	09:12:17	600.02	23.73	5.48	134.48	42.70	111.35	7.00	67.06
Last 5	09:17:17	900.02	23.43	5.49	137.70	28.10	111.35	7.07	62.87
Last 5	09:22:17	1200.03	23.29	5.48	140.31	9.34	111.35	7.03	61.30
Last 5	09:27:17	1500.02	23.31	5.44	143.74	5.76	111.35	7.04	60.82
Last 5	09:32:17	1800.02	23.25	5.45	145.16	2.78	111.35	7.05	60.39
Variance 0			-0.14	-0.02	2.61			-0.05	-1.56
Variance 1			0.02	-0.04	3.43			0.01	-0.48
Variance 2			-0.07	0.01	1.42			0.01	-0.44

Notes

Sample@0933, Dup-04@0833. Sunny 88

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 13:45:55

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	qed
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	58.8 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	13:21:59	1500.01	26.05	3.98	1097.49	4.73	58.80	6.57	548.43
Last 5	13:26:59	1800.01	27.06	3.99	1101.72	3.44	58.80	6.49	553.55
Last 5	13:31:59	2100.01	26.90	4.00	1101.06	2.60	58.80	6.43	553.82
Last 5	13:36:59	2400.01	26.80	3.99	1109.36	1.88	58.80	6.42	555.75
Last 5	13:41:59	2700.01	26.83	3.99	1109.71	1.63	58.80	6.46	557.30
Variance 0			-0.16	0.01	-0.66			-0.06	0.28
Variance 1			-0.09	-0.00	8.29			-0.01	1.93
Variance 2			0.03	-0.00	0.36			0.04	1.54

Notes

EB-01@1245, sampled@1350 temperature 92 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 11:11:10

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	pp
Company Name	RDH ENV	Tubing Type	PE
Project Name	Landfill 1-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	50 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3131711 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.6 in
Depth to Water	21.55 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	10:46:44	300.01	22.13	6.22	464.51	8.24	21.60	0.26	89.11
Last 5	10:51:44	600.01	21.76	6.11	484.47	7.48	21.61	0.10	76.46
Last 5	10:56:44	900.01	21.76	6.02	511.24	6.36	21.61	0.09	71.78
Last 5	11:01:44	1200.01	21.81	6.01	514.03	5.13	21.61	0.08	68.82
Last 5	11:06:44	1500.01	21.79	5.99	518.11	4.58	21.61	0.06	66.49
Variance 0			-0.00	-0.08	26.77			-0.01	-4.68
Variance 1			0.06	-0.01	2.79			-0.01	-2.95
Variance 2			-0.02	-0.02	4.08			-0.02	-2.34

Notes

Sampled@1120 temperature 90 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-08 13:37:43

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Landfill-1 background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	98 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	2100q	Pump placement from TOC	88.0 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6574154 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	66.61 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	13:13:42	600.01	24.20	5.46	26.27	2.25	66.71	6.24	70.03
Last 5	13:18:42	900.01	23.08	5.47	25.71	2.19	66.71	6.07	67.58
Last 5	13:23:42	1200.01	22.98	5.48	25.55	1.64	66.71	5.87	67.91
Last 5	13:28:42	1500.01	22.89	5.50	25.68	0.97	66.71	5.68	67.66
Last 5	13:33:42	1800.01	22.94	5.49	25.57	0.65	66.71	5.77	68.40
Variance 0			-0.10	0.01	-0.16			-0.20	0.33
Variance 1			-0.09	0.02	0.13			-0.19	-0.24
Variance 2			0.05	-0.01	-0.11			0.09	0.73

Notes

Sample time 1338. P/C 89.

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 10:18:33

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	127 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7868547 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	100.98 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	09:56:35	600.02	26.78	5.88	31.70	2.54	101.00	8.74	87.72
Last 5	10:01:35	900.02	26.92	5.74	32.01	1.89	101.00	8.91	86.92
Last 5	10:06:35	1200.02	27.08	5.64	32.13	1.76	101.00	8.76	86.32
Last 5	10:11:35	1500.02	27.19	5.56	32.12	1.10	101.00	8.92	85.88
Last 5	10:16:35	1800.02	27.20	5.48	32.11	1.18	101.00	8.92	86.12
Variance 0			0.16	-0.10	0.12			-0.15	-0.60
Variance 1			0.11	-0.08	-0.00			0.15	-0.45
Variance 2			0.00	-0.07	-0.01			-0.00	0.24

Notes

Sample@1017, Dup-01@0917. Sunny90

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 09:22:59

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	68.81 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	09:06:57	300.06	24.98	7.36	38.36	7.46	68.84	8.01	96.68
Last 5	09:11:57	600.03	25.47	7.21	37.91	5.35	68.84	8.25	93.44
Last 5	09:16:57	900.02	25.48	7.16	38.11	3.77	68.84	8.37	88.76
Last 5	09:21:57	1200.02	25.46	7.11	37.90	2.91	68.84	8.37	85.68
Last 5									
Variance 0			0.50	-0.15	-0.45			0.25	-3.24
Variance 1			0.01	-0.05	0.20			0.11	-4.68
Variance 2			-0.02	-0.04	-0.21			0.00	-3.08

Notes

Sample@0922 Sunny88

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 11:49:26

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF- 1Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1	Tubing Length	135 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	110.67 ft	Total Volume Pumped	34 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	11:26:29	3900.03	25.96	4.87	81.34	0.71	110.71	8.71	80.69
Last 5	11:31:29	4200.02	25.85	4.87	81.40	0.75	110.71	8.72	80.36
Last 5	11:36:29	4500.03	26.53	4.87	80.70	0.54	110.71	8.69	80.93
Last 5	11:41:29	4800.02	26.46	4.87	82.30	0.49	110.71	8.72	80.68
Last 5	11:46:29	5100.02	26.42	4.86	80.11	0.44	110.71	8.70	80.54
Variance 0			0.68	-0.00	-0.69			-0.03	0.56
Variance 1			-0.07	-0.00	1.60			0.03	-0.24
Variance 2			-0.04	-0.01	-2.20			-0.02	-0.14

Notes

Sample@1148, Eq-03@1200, Sunny 92

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 13:38:09

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF- 1Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	81 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	13:16:52	3000.02	23.88	5.84	738.28	1.05	81.09	4.97	73.95
Last 5	13:21:52	3300.02	23.86	5.72	777.10	1.09	81.09	4.83	76.15
Last 5	13:26:52	3600.02	24.19	5.65	800.97	0.94	81.09	4.74	77.96
Last 5	13:31:52	3900.04	24.19	5.56	812.90	0.84	81.09	4.65	80.10
Last 5	13:36:52	4200.03	24.06	5.55	829.48	0.86	81.09	4.60	82.15
Variance 0			0.33	-0.08	23.87			-0.10	1.81
Variance 1			0.00	-0.09	11.93			-0.09	2.14
Variance 2			-0.13	-0.01	16.58			-0.05	2.05

Notes

Sample@1337. Sunny 94

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 12:28:32

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	pp
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.690854 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.4 in
Depth to Water	16.88 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	12:07:44	300.01	22.62	4.76	6854.02	8.70	16.91	0.12	141.84
Last 5	12:12:44	600.01	22.38	4.80	6946.46	6.53	16.91	0.08	141.59
Last 5	12:17:44	900.01	22.31	4.83	6862.89	3.17	16.91	0.07	141.47
Last 5	12:22:44	1200.01	22.35	4.86	6791.73	2.05	16.91	0.06	141.36
Last 5 Variance 0			-0.24	0.04	92.44			-0.04	-0.26
Variance 1			-0.07	0.04	-83.58			-0.02	-0.12
Variance 2			0.05	0.03	-71.15			-0.01	-0.11

Notes

Sampled@1235 temperature 92 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 07:22:00

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum background-3	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	47.95 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	06:57:10	1200.02	23.83	5.77	6584.54	19.70	47.96	0.13	33.57
Last 5	07:02:10	1500.02	23.83	5.71	6623.37	16.60	47.96	0.12	34.77
Last 5	07:07:10	1800.02	23.88	5.64	6594.70	12.40	47.96	0.12	36.87
Last 5	07:12:10	2100.02	23.83	5.58	6609.75	11.10	47.96	0.12	38.87
Last 5	07:17:10	2400.02	23.93	5.52	6621.71	9.49	47.96	0.12	40.08
Variance 0			0.05	-0.06	-28.67			-0.00	2.10
Variance 1			-0.04	-0.06	15.05			-0.00	2.00
Variance 2			0.09	-0.06	11.96			0.00	1.21

Notes

Sample@0719, DUP-02@0619. Sunny 81

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 08:15:42

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	qed
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	70 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.3 in
Depth to Water	51.01 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	07:57:18	300.05	23.52	4.44	87.79	14.70	51.04	3.45	107.73
Last 5	08:02:18	600.01	22.93	4.53	99.68	11.20	51.04	3.74	111.76
Last 5	08:07:18	900.05	22.82	4.56	100.78	7.65	51.04	3.76	113.54
Last 5	08:12:18	1200.01	22.82	4.61	101.24	4.33	51.04	3.76	114.09
Last 5									
Variance 0			-0.59	0.09	11.89			0.30	4.03
Variance 1			-0.11	0.04	1.09			0.01	1.78
Variance 2			0.01	0.05	0.46			0.00	0.55

Notes

Sampled@0820 precipitation none temperature 84 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 15:55:12

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	qed
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	70 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5344396 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.7 in
Depth to Water	44.66 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	15:29:59	1200.01	23.17	4.82	192.10	11.30	44.79	0.20	84.31
Last 5	15:34:59	1500.01	23.34	4.80	202.08	10.90	44.81	0.25	88.95
Last 5	15:39:59	1800.01	23.29	4.78	208.89	11.00	44.82	0.30	93.09
Last 5	15:44:59	2100.02	23.25	4.78	214.07	9.78	44.83	0.33	96.78
Last 5	15:49:59	2400.01	23.32	4.77	218.45	8.48	44.83	0.35	99.81
Variance 0			-0.04	-0.02	6.81			0.05	4.13
Variance 1			-0.04	-0.01	5.18			0.03	3.69
Variance 2			0.07	-0.00	4.38			0.02	3.03

Notes

Sampled@1600 eb-01@1430. Fb-01@1440. Temperature 88 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 10:01:33

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	PP
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	24.4 in
Depth to Water	13.31 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	09:38:13	300.05	22.17	4.53	1105.91	5.60	15.39	0.14	144.27
Last 5	09:43:13	600.01	21.90	4.55	1120.51	4.79	15.57	0.08	144.02
Last 5	09:48:13	900.01	21.91	4.52	1156.69	4.31	15.64	0.07	144.71
Last 5	09:53:13	1200.01	22.09	4.54	1150.84	3.97	15.72	0.07	144.57
Last 5	09:58:16	1503.01	22.04	4.54	1153.05	3.68	15.75	0.08	145.52
Variance 0			0.01	-0.02	36.18			-0.01	0.70
Variance 1			0.18	0.01	-5.85			-0.00	-0.15
Variance 2			-0.04	-0.00	2.21			0.02	0.96

Notes

Sampled@1005 precipitation none temperature 88 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 10:05:29

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	qed
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3985369 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.2 in
Depth to Water	16.11 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%	+/- 5		+/- 0.2	+/- 10
Last 5	09:41:40	1800.01	22.44	5.12	205.66	3.73	16.13	1.95	132.56
Last 5	09:46:40	2100.01	23.25	5.12	206.87	3.56	16.13	1.93	132.83
Last 5	09:51:40	2400.01	22.74	5.12	208.83	4.39	16.13	1.93	132.80
Last 5	09:56:40	2700.01	22.73	5.11	208.89	3.21	16.13	1.93	133.46
Last 5	10:01:40	3000.01	22.71	5.12	207.93	4.76	16.13	1.94	133.16
Variance 0			-0.51	-0.00	1.96			-0.00	-0.03
Variance 1			-0.01	-0.01	0.06			-0.00	0.66
Variance 2			-0.02	0.01	-0.95			0.01	-0.30

Notes

Sampled@1010 temperature 90 degrees precipitation none

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 13:25:29

Project Information:		Pump Information:	
Operator Name	Shane Bragg	Pump Model/Type	pp
Company Name	RDH ENV	Tubing Type	PE
Project Name	GYP-Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	50 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3131711 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.2 in
Depth to Water	25.79 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	13:06:04	300.01	24.72	4.10	15134.80	2.74	25.81	0.13	159.36
Last 5	13:11:04	600.01	24.37	4.11	15190.52	1.98	25.81	0.11	158.66
Last 5	13:16:04	900.01	24.41	4.13	15084.79	1.03	25.81	0.09	158.20
Last 5	13:21:04	1200.01	24.40	4.15	15064.68	0.64	25.81	0.08	158.01
Last 5									
Variance 0			-0.35	0.02	55.72			-0.03	-0.70
Variance 1			0.04	0.01	-105.74			-0.02	-0.45
Variance 2			-0.01	0.02	-20.11			-0.01	-0.19

Notes

Sampled@1330 precipitation none temperature 92 degrees

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 07:26:45

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-2	Tubing Length	80 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5770739 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.13 in
Depth to Water	57.17 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	07:10:09	300.02	21.75	5.11	43.60	0.84	57.30	6.05	75.50
Last 5	07:15:09	600.02	21.72	5.02	45.02	0.88	57.30	6.38	74.91
Last 5	07:20:09	900.02	21.64	4.96	45.96	0.93	57.30	6.54	74.65
Last 5	07:25:09	1200.02	21.73	4.96	46.25	0.85	57.30	6.47	74.60
Last 5									
Variance 0			-0.03	-0.09	1.42			0.34	-0.59
Variance 1			-0.09	-0.06	0.94			0.16	-0.27
Variance 2			0.09	-0.00	0.29			-0.07	-0.05

Notes

Sample@0726 Sunny 80

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 11:19:42

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	35.65 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:57:21	900.02	25.38	7.11	534.35	0.63	35.66	6.44	40.50
Last 5	11:02:21	1200.02	25.13	7.10	539.93	0.64	35.66	6.56	40.27
Last 5	11:07:21	1500.02	25.31	7.10	539.45	0.60	35.66	6.54	40.49
Last 5	11:12:21	1800.02	25.49	7.09	545.58	0.54	35.66	6.52	40.92
Last 5	11:17:21	2100.02	25.33	7.07	551.79	0.57	35.66	6.50	41.25
Variance 0			0.18	-0.00	-0.48			-0.02	0.22
Variance 1			0.19	-0.01	6.13			-0.02	0.43
Variance 2			-0.16	-0.02	6.21			-0.02	0.33

Notes

Sample@1118,EQ Blank-02@1130,Field Blank-02@1140, cloudy 88

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 09:09:33

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-2	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	34.60 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	08:47:41	2100.02	23.34	5.01	1590.79	1.13	34.61	0.75	203.70
Last 5	08:52:41	2400.02	23.25	4.98	1591.50	1.17	34.61	0.82	214.16
Last 5	08:57:41	2700.02	23.47	4.97	1581.71	1.04	34.61	0.82	217.63
Last 5	09:02:41	3000.02	23.47	4.95	1585.79	0.61	34.61	0.88	223.95
Last 5	09:07:41	3300.02	23.34	4.93	1591.12	0.79	34.61	0.95	227.07
Variance 0			0.22	-0.01	-9.80			0.01	3.47
Variance 1			0.00	-0.02	4.09			0.06	6.32
Variance 2			-0.14	-0.02	5.33			0.07	3.12

Notes

Sample@0908 partly cloudy 86

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 06:26:56

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-2	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	49.32 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:10:37	300.07	22.22	5.63	37.93	0.71	49.35	6.24	97.29
Last 5	06:15:37	600.02	21.91	5.34	37.86	0.79	49.35	6.38	91.52
Last 5	06:20:37	900.02	22.04	5.20	38.19	0.69	49.35	6.47	88.88
Last 5	06:25:37	1200.02	22.04	5.19	38.78	0.66	49.35	6.52	86.89
Last 5									
Variance 0			-0.31	-0.29	-0.07			0.14	-5.77
Variance 1			0.13	-0.14	0.34			0.10	-2.64
Variance 2			0.00	-0.00	0.58			0.05	-1.99

Notes

Sample@0626 Sunny 77

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 12:50:14

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	55.58 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	12:27:30	300.06	30.95	5.48	34.73	0.52	55.61	7.68	82.32
Last 5	12:32:30	600.02	24.37	5.54	34.01	0.80	55.61	7.64	71.55
Last 5	12:37:30	900.02	23.52	5.48	34.38	0.31	55.61	7.77	68.22
Last 5	12:42:30	1200.02	23.36	5.43	34.33	0.45	55.61	7.72	67.19
Last 5	12:47:30	1500.02	23.39	5.38	34.05	0.43	55.61	7.72	67.23
Variance 0			-0.85	-0.05	0.36			0.13	-3.33
Variance 1			-0.16	-0.05	-0.05			-0.05	-1.03
Variance 2			0.03	-0.06	-0.28			0.00	0.04

Notes

Sample@1249, Sunny 90

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-05 14:22:59

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells Background 3	Tubing Diameter	.17 in
Site Name	Plant Crist	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.56 in
Depth to Water	90.07 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%	+/- 10		+/- 0.2	+/- 10
Last 5	13:58:11	1500.02	24.87	6.18	53.36	0.57	90.63	0.26	-42.55
Last 5	14:03:11	1800.02	24.67	6.22	63.47	0.52	90.63	0.32	-45.10
Last 5	14:08:11	2100.02	24.51	6.25	64.44	0.43	90.63	0.40	-42.32
Last 5	14:13:11	2400.02	24.43	6.28	64.87	0.41	90.63	0.49	-39.36
Last 5	14:18:11	2700.02	24.55	6.29	65.97	0.37	90.63	0.51	-38.37
Variance 0			-0.16	0.03	0.97			0.08	2.78
Variance 1			-0.07	0.03	0.43			0.09	2.95
Variance 2			0.12	0.00	1.10			0.01	0.99

Notes

Sample@1422, partly cloudy 91

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 10:04:48

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-3	Tubing Diameter	.17 in
Site Name	Plant Crist LF-2	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	33.94 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:53:10	300.07	24.01	6.42	837.59	2.60	33.95	4.76	40.89
Last 5	09:58:10	600.02	24.08	6.43	840.86	1.76	33.95	4.71	44.21
Last 5	10:03:10	900.02	23.94	6.42	849.51	1.55	39.95	4.80	44.87
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.07	0.01	3.27			-0.05	3.32
Variance 2			-0.14	-0.01	8.66			0.09	0.66

Notes

Sample@1004, DUP-03@0904, Partly cloudy 89

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 10:20:52

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist BKG	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	90.53 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:04:51	300.02	23.29	5.11	37.99	9.01	90.55	8.33	143.16
Last 5	10:09:51	600.02	23.12	5.13	38.22	9.41	90.55	8.35	136.25
Last 5	10:14:51	900.03	23.06	5.12	38.31	4.10	90.55	8.34	132.86
Last 5	10:19:52	1200.03	23.02	5.11	38.41	2.14	90.55	8.38	131.35
Last 5									
Variance 0			-0.18	0.02	0.23			0.02	-6.91
Variance 1			-0.05	-0.00	0.09			-0.00	-3.40
Variance 2			-0.04	-0.01	0.10			0.04	-1.50

Notes

Sample@1020 cloudy 79

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 16:21:24

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PP
Project Name	LF-1 background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 Background-4	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	96.33 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	15:59:46	300.05	23.76	5.51	29.68	4.26	96.35	9.17	187.01
Last 5	16:04:46	600.02	23.25	5.52	29.71	4.11	96.35	9.25	193.07
Last 5	16:09:46	900.03	23.07	5.52	29.70	1.73	96.35	9.25	194.89
Last 5	16:14:46	1200.02	23.03	5.45	29.83	1.13	96.35	9.26	195.34
Last 5	16:19:46	1500.03	23.00	5.43	29.86	1.04	96.35	9.24	194.90
Variance 0			-0.18	-0.00	-0.01			-0.01	1.82
Variance 1			-0.04	-0.07	0.12			0.01	0.45
Variance 2			-0.02	-0.02	0.03			-0.02	-0.44

Notes

Sample@1620, DUP-01@1520 partly cloudy 84

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 17:43:54

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Landfill-1 Background-4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	130 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.800245 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	102.18 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	17:19:48	1200.05	23.15	4.82	31.86	8.86	102.31	8.64	86.69
Last 5	17:24:48	1500.02	23.05	4.82	31.87	7.75	102.30	8.65	88.81
Last 5	17:29:48	1800.01	22.88	4.83	32.01	5.81	102.29	8.64	91.21
Last 5	17:34:48	2100.01	22.84	4.83	31.90	3.45	102.29	8.64	93.60
Last 5	17:39:48	2400.02	22.73	4.84	31.82	2.63	102.28	8.64	95.30
Variance 0			-0.16	0.01	0.14			-0.01	2.40
Variance 1			-0.05	-0.00	-0.11			0.00	2.39
Variance 2			-0.11	0.02	-0.08			-0.00	1.70

Notes

Sample time 1745. Sunny 88.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 11:56:37

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	LF-1 Background-4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	125 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	116.0 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	120.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	112.09 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	11:33:45	300.02	23.62	4.97	139.07	49.10	112.15	7.22	119.33
Last 5	11:38:45	600.01	23.20	5.01	142.65	8.93	112.15	7.36	118.41
Last 5	11:43:45	900.01	23.06	5.02	144.44	5.55	112.15	7.45	118.11
Last 5	11:48:45	1200.01	22.95	5.00	145.33	3.13	112.15	7.48	119.66
Last 5	11:53:45	1500.01	23.02	5.01	146.10	2.10	112.15	7.40	119.80
Variance 0			-0.14	0.01	1.79			0.09	-0.30
Variance 1			-0.11	-0.03	0.89			0.03	1.56
Variance 2			0.07	0.01	0.77			-0.08	0.14

Notes

Sample time 1156. Sunny 87.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 12:26:21

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PP
Project Name	LF-1 background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 Background-4	Tubing Length	90 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.621708 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	59.25 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%	+/- 10		+/- 0.2	+/- 10
Last 5	12:04:34	2700.02	25.19	4.07	1958.36	6.74	59.29	5.79	470.29
Last 5	12:09:34	3000.02	25.23	4.07	1955.33	4.95	59.29	5.77	487.60
Last 5	12:14:34	3300.02	25.14	4.06	1955.72	4.16	59.29	5.82	502.43
Last 5	12:19:34	3600.02	25.22	4.06	1955.51	3.86	59.29	5.83	505.70
Last 5	12:24:34	3900.02	25.10	4.06	1954.17	3.56	59.29	5.81	508.41
Variance 0			-0.08	-0.00	0.39			0.06	14.83
Variance 1			0.08	-0.00	-0.21			0.01	3.27
Variance 2			-0.12	0.00	-1.34			-0.02	2.71

Notes

Sample @1225, EQ BLANK-01@1100 Sunny 86

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 10:48:50

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PP
Project Name	LF-1 background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 Background-4	Tubing Length	48 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4342443 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	21.59 ft	Total Volume Pumped	54 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	10:27:26	6901.02	22.02	6.03	581.59	24.30	21.63	0.03	29.07
Last 5	10:32:26	7201.02	21.95	6.04	579.75	23.20	21.63	0.03	28.88
Last 5	10:37:26	7501.02	22.03	6.04	579.92	21.90	21.63	0.03	28.55
Last 5	10:42:26	7801.02	22.22	6.04	581.14	21.30	21.63	0.03	27.92
Last 5	10:47:26	8101.02	22.11	6.03	579.03	19.60	21.63	0.03	27.57
Variance 0			0.08	0.01	0.17			-0.00	-0.33
Variance 1			0.19	0.00	1.22			-0.00	-0.63
Variance 2			-0.11	-0.01	-2.11			-0.00	-0.35

Notes

Sample@1048 Sunny 84

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 07:58:10

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PP
Project Name	LF-1 background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 Background-4	Tubing Length	98 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6574154 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	66.90 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:46:22	300.06	21.64	5.31	30.23	1.21	67.00	7.32	84.08
Last 5	07:51:22	600.02	21.59	5.24	29.55	1.23	67.00	7.28	86.54
Last 5	07:56:22	900.02	21.64	5.22	29.25	0.74	67.00	7.24	88.60
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	-0.07	-0.67			-0.04	2.46
Variance 2			0.05	-0.02	-0.30			-0.04	2.07

Notes

Sample@0756, field blank -01@0800, Sunny 75

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 09:12:37

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist BKG	Tubing Length	127 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7868547 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	102.04 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	08:56:42	300.03	22.80	5.14	34.42	6.94	102.05	9.32	153.66
Last 5	09:01:42	600.03	22.44	5.14	34.42	7.67	102.05	9.34	146.10
Last 5	09:06:42	900.03	22.45	5.12	34.37	6.69	102.05	9.35	142.12
Last 5	09:11:42	1200.02	22.44	5.12	34.14	4.11	102.05	9.31	138.47
Last 5									
Variance 0			-0.36	-0.00	-0.00			0.02	-7.55
Variance 1			0.01	-0.02	-0.05			0.01	-3.98
Variance 2			-0.01	0.00	-0.23			-0.04	-3.65

Notes

Sample@0912, cloudy 75

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 08:05:47

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist BKG	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	70.36 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	07:42:39	600.03	21.86	5.31	41.08	10.70	70.39	9.06	173.22
Last 5	07:47:39	900.04	21.83	5.22	40.97	11.20	70.39	9.07	167.02
Last 5	07:52:39	1200.03	21.77	5.17	40.94	7.78	70.39	9.05	161.87
Last 5	07:57:39	1500.02	21.80	5.18	40.89	6.69	70.39	9.06	157.32
Last 5	08:02:39	1800.02	21.77	5.19	40.83	4.97	70.39	9.18	153.20
Variance 0			-0.06	-0.04	-0.03			-0.02	-5.15
Variance 1			0.04	0.01	-0.04			0.01	-4.56
Variance 2			-0.03	0.01	-0.06			0.12	-4.11

Notes

Sample@0805, cloudy 77

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 10:35:07

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	LF-1 Background-4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	143 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	128.0 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8582695 L
Well Total Depth	133.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	111.43 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	10:16:54	300.06	22.51	4.64	67.28	2.57	111.47	8.83	94.43
Last 5	10:21:54	600.02	22.14	4.68	68.00	0.94	111.47	8.89	92.00
Last 5	10:26:54	900.02	22.09	4.70	68.21	0.76	111.47	8.87	91.13
Last 5	10:31:54	1200.02	22.06	4.72	67.87	0.55	111.47	8.84	92.59
Last 5									
Variance 0			-0.37	0.03	0.72			0.06	-2.43
Variance 1			-0.05	0.02	0.21			-0.03	-0.88
Variance 2			-0.03	0.02	-0.33			-0.02	1.46

Notes

Sample time 1035. Sunny 83.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 09:08:11

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	L/F -1 background 4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	124 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7734645 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.14 in
Depth to Water	81.67 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%	+/- 5		+/- 0.2	+/- 10
Last 5	08:44:53	1800.03	21.99	4.83	649.55	4.78	81.81	5.54	142.12
Last 5	08:49:53	2100.03	21.99	4.83	674.92	3.85	81.81	5.39	143.16
Last 5	08:54:53	2400.03	22.02	4.85	701.32	3.49	81.81	5.24	144.56
Last 5	08:59:53	2700.03	22.03	4.85	719.59	2.62	81.81	5.16	145.39
Last 5	09:04:53	3000.03	22.08	4.86	735.65	2.47	81.81	5.08	145.79
Variance 0			0.03	0.01	26.40			-0.15	1.40
Variance 1			0.02	-0.00	18.27			-0.09	0.83
Variance 2			0.05	0.01	16.06			-0.08	0.40

Notes

Sample time 0908. Sunny 77.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 12:23:44

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background 4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	39 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.0 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2640735 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	16.54 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	12:05:14	300.03	24.64	4.65	6317.10	6.15	16.52	0.13	155.18
Last 5	12:10:14	600.02	24.35	4.70	6424.67	4.42	16.52	0.09	155.67
Last 5	12:15:14	900.01	24.28	4.73	6434.63	3.35	16.52	0.08	155.95
Last 5	12:20:14	1200.01	24.32	4.76	6379.87	3.05	16.52	0.07	155.99
Last 5									
Variance 0			-0.29	0.04	107.57			-0.04	0.49
Variance 1			-0.07	0.03	9.96			-0.01	0.29
Variance 2			0.04	0.03	-54.76			-0.01	0.03

Notes

Sample time 1223. EB-03 @ 1135. Sunny 86.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 09:42:16

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum Background -4	Tubing Diameter	.17 in
Site Name	Plant Crist GYP BG-4	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	47.72 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%	+/- 10		+/- 0.2	+/- 10
Last 5	09:20:46	2400.02	23.24	5.28	7304.30	10.00	47.74	0.49	180.16
Last 5	09:25:46	2700.02	23.26	5.27	7283.46	8.40	47.74	0.45	180.12
Last 5	09:30:46	3000.02	23.30	5.27	7329.67	7.31	47.74	0.43	180.15
Last 5	09:35:46	3300.02	23.33	5.26	7313.08	5.94	47.74	0.40	180.16
Last 5	09:40:46	3600.02	23.38	5.26	7303.53	4.86	47.74	0.38	180.02
Variance 0			0.04	-0.01	46.20			-0.03	0.04
Variance 1			0.03	-0.01	-16.59			-0.03	0.00
Variance 2			0.06	-0.00	-9.55			-0.02	-0.14

Notes

Sample@0941, Sunny 82

Grab Samples

Product Name: Low-Flow System

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

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum Background -4	Tubing Diameter	.17 in
Site Name	Plant Crist GYP BG-4	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	50.76 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:38:42	900.02	21.75	4.69	114.14	16.50	50.90	3.41	118.44
Last 5	07:43:42	1200.02	21.75	4.69	115.51	14.70	50.90	3.45	120.49
Last 5	07:48:42	1500.04	21.76	4.68	118.45	7.18	50.90	3.31	122.47
Last 5	07:53:42	1800.03	21.77	4.67	122.30	4.70	50.90	3.25	124.20
Last 5	07:58:42	2100.02	21.80	4.67	119.54	4.66	50.90	3.29	125.86
Variance 0			0.01	-0.01	2.95			-0.14	1.98
Variance 1			0.01	-0.01	3.85			-0.06	1.74
Variance 2			0.03	0.00	-2.76			0.04	1.66

Notes

Sample@0800 Sunny 73

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 08:38:35

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background-4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	68 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5235128 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.13 in
Depth to Water	44.54 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	08:15:48	1500.03	22.12	4.60	197.93	0.79	44.67	0.28	100.67
Last 5	08:20:48	1800.03	22.26	4.60	205.32	0.70	44.67	0.31	102.86
Last 5	08:25:48	2100.03	22.02	4.60	212.59	0.72	44.67	0.35	105.23
Last 5	08:30:48	2400.03	21.98	4.60	218.06	0.62	44.67	0.38	106.64
Last 5	08:35:48	2700.03	21.98	4.60	220.53	0.57	44.67	0.39	107.54
Variance 0			-0.23	-0.00	7.27			0.04	2.37
Variance 1			-0.05	0.01	5.47			0.03	1.40
Variance 2			0.00	-0.00	2.47			0.01	0.90

Notes

Sample time 0839. Sunny 73.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 10:03:12

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background 4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	21 in
Depth to Water	12.93 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:38:04	900.01	23.18	4.48	1156.96	1.97	14.60	0.10	160.97
Last 5	09:43:04	1200.02	22.66	4.49	1157.85	1.85	14.64	0.11	160.79
Last 5	09:48:04	1500.02	22.39	4.48	1158.46	1.43	14.72	0.11	161.48
Last 5	09:53:04	1800.02	22.30	4.48	1155.41	0.93	14.77	0.09	161.96
Last 5	09:58:04	2100.02	22.26	4.48	1157.55	0.92	14.80	0.10	162.32
Variance 0			-0.27	-0.00	0.61			0.00	0.69
Variance 1			-0.09	-0.00	-3.05			-0.02	0.47
Variance 2			-0.04	0.00	2.14			0.00	0.36

Notes

Sample time 1003. Sunny 79.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 11:06:05

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env	Tubing Type	PE
Project Name	GYP background 4	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	15.83 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	10:46:08	300.06	23.56	5.45	164.51	0.90	15.83	3.29	76.72
Last 5	10:51:08	600.02	23.23	5.50	163.44	0.74	15.82	3.21	74.11
Last 5	10:56:08	900.01	23.28	5.51	164.02	0.53	15.81	3.19	73.59
Last 5	11:01:08	1200.01	23.19	5.53	165.62	0.39	15.81	3.19	73.00
Last 5									
Variance 0			-0.32	0.06	-1.07			-0.08	-2.61
Variance 1			0.04	0.00	0.58			-0.02	-0.53
Variance 2			-0.09	0.02	1.59			0.01	-0.58

Notes

Sample time 1105. FB-03 @ 1050. Sunny 86.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 10:26:07

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum Background -4	Tubing Diameter	.17 in
Site Name	Plant Crist GYP BG-4	Tubing Length	43 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4119272 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	25.43 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:14:37	300.06	23.52	4.65	13991.01	1.69	25.49	0.14	147.72
Last 5	10:19:37	600.02	23.48	4.63	14276.63	1.90	25.49	0.12	152.95
Last 5	10:24:37	900.02	23.39	4.60	14464.92	1.29	25.49	0.09	155.67
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.04	-0.03	285.63			-0.03	5.23
Variance 2			-0.09	-0.03	188.29			-0.02	2.72

Notes

Sample@1025, DUP-03@0925 Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 14:16:18

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF -2	Tubing Length	83 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5904641 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.19 in
Depth to Water	57.11 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	13:54:02	900.02	21.68	4.90	46.05	19.60	57.30	4.80	235.99
Last 5	13:59:02	1200.02	21.59	4.88	45.89	12.40	57.30	4.79	235.32
Last 5	14:04:02	1500.02	21.56	4.88	45.80	9.03	57.30	4.75	233.45
Last 5	14:09:02	1800.02	21.55	4.89	45.77	6.95	57.30	4.77	231.37
Last 5	14:14:02	2100.03	21.55	4.88	45.68	4.77	57.30	4.78	230.37
Variance 0			-0.03	-0.00	-0.09			-0.04	-1.88
Variance 1			-0.01	0.00	-0.03			0.02	-2.07
Variance 2			0.00	-0.01	-0.09			0.02	-1.00

Notes

Sample@1415, DUP-02@1315 , Sunny 90

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 06:14:17

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF -2	Tubing Length	68 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5235128 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	35.1 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	05:52:06	300.07	22.52	6.75	716.18	1.08	35.10	3.63	122.09
Last 5	05:57:06	600.02	22.54	6.80	724.74	1.21	35.10	3.53	123.37
Last 5	06:02:06	900.02	22.56	6.81	736.76	1.18	35.10	3.35	125.42
Last 5	06:07:06	1200.02	22.58	6.78	742.78	1.25	35.10	3.30	127.61
Last 5	06:12:06	1500.02	22.57	6.72	752.66	1.32	35.10	3.27	130.26
Variance 0			0.02	0.00	12.02			-0.17	2.04
Variance 1			0.02	-0.03	6.02			-0.06	2.19
Variance 2			-0.01	-0.06	9.87			-0.03	2.65

Notes

Sample@0612, Field blank -02@0620,EQ Blank -02@0625, clear 70

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 16:09:23

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF -2	Tubing Length	58 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4788785 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	33.97 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:56:04	300.02	22.26	5.45	997.56	1.43	33.96	0.17	161.87
Last 5	16:01:04	600.02	22.37	5.42	1020.86	1.74	33.97	0.12	160.42
Last 5	16:06:04	900.02	22.22	5.36	1043.61	1.19	33.97	0.09	160.93
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.11	-0.03	23.30			-0.05	-1.45
Variance 2			-0.15	-0.06	22.75			-0.03	0.52

Notes

Sample@1608 sunny88

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 15:18:26

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF -2	Tubing Length	78 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5681469 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	48.85 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	15:02:11	300.02	23.52	4.90	41.06	2.34	48.85	6.45	252.11
Last 5	15:07:11	600.02	23.29	4.90	42.01	1.87	48.85	6.59	253.57
Last 5	15:12:11	900.02	23.18	4.91	42.55	1.71	48.85	6.58	253.39
Last 5	15:17:11	1200.02	23.12	4.90	43.10	1.67	48.85	6.66	253.09
Last 5									
Variance 0			-0.23	-0.00	0.95			0.15	1.45
Variance 1			-0.11	0.01	0.55			-0.01	-0.17
Variance 2			-0.06	-0.00	0.54			0.08	-0.30

Notes

Sample@1517, Sunny 90

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 11:49:19

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist BKG	Tubing Length	98 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6574154 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.08 in
Depth to Water	55.97 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	11:27:09	600.02	22.13	5.35	36.02	3.02	56.05	8.07	134.25
Last 5	11:32:09	900.03	22.03	5.34	35.71	2.54	56.05	8.02	131.26
Last 5	11:37:09	1200.02	21.90	5.36	35.10	2.04	56.05	8.12	129.09
Last 5	11:42:09	1500.03	21.82	5.37	34.87	1.68	56.05	8.20	128.24
Last 5	11:47:09	1800.02	21.90	5.37	34.78	1.53	56.05	8.22	128.12
Variance 0			-0.13	0.01	-0.61			0.10	-2.17
Variance 1			-0.09	0.02	-0.22			0.08	-0.84
Variance 2			0.09	-0.00	-0.09			0.02	-0.13

Notes

Sample@1148 cloudy 81

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-06 14:41:24

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist BKG	Tubing Length	127 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7868547 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.31 in
Depth to Water	90.64 ft	Total Volume Pumped	54 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	14:20:01	6900.03	25.32	6.43	80.24	3.39	90.95	1.33	-55.81
Last 5	14:25:01	7200.02	25.68	6.42	80.21	3.33	90.95	1.32	-57.09
Last 5	14:30:01	7500.02	26.06	6.41	78.84	3.24	90.95	1.35	-56.39
Last 5	14:35:01	7800.02	26.03	6.40	79.65	3.13	90.95	1.41	-56.49
Last 5	14:40:01	8100.02	26.14	6.42	78.23	3.03	90.95	1.39	-55.76
Variance 0			0.38	-0.02	-1.37			0.03	0.70
Variance 1			-0.04	-0.01	0.81			0.06	-0.11
Variance 2			0.12	0.01	-1.43			-0.01	0.74

Notes

Sample@1420 Sunny 88

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-07 16:56:32

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2 Background-4	Tubing Diameter	.17 in
Site Name	Plant Crist LF -2	Tubing Length	68 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5235128 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	33.18 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	16:40:03	300.02	23.45	5.68	865.58	2.73	33.20	0.31	176.14
Last 5	16:45:03	600.02	23.11	5.88	1053.51	0.63	33.20	1.94	180.09
Last 5	16:50:03	900.02	23.17	5.97	1070.11	0.39	33.20	2.03	178.97
Last 5	16:55:03	1200.02	23.07	6.01	1065.37	0.43	33.20	1.92	177.39
Last 5									
Variance 0			-0.34	0.21	187.93			1.63	3.95
Variance 1			0.06	0.09	16.60			0.09	-1.13
Variance 2			-0.10	0.04	-4.74			-0.11	-1.58

Notes

Sample@1656 Sunny 88

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-07 09:19:40

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells	Tubing Diameter	.17 in
Site Name	Plant Crist BKG Wells	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	90.80 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	08:57:51	300.03	21.27	4.77	37.67	17.60	90.80	8.23	157.95
Last 5	09:02:51	600.02	21.22	4.77	37.78	17.20	90.80	8.15	153.78
Last 5	09:07:51	900.02	21.09	4.77	37.98	6.71	90.80	8.09	150.79
Last 5	09:12:51	1200.02	21.03	4.76	37.96	4.23	90.80	8.07	148.36
Last 5	09:17:51	1500.02	21.04	4.76	37.87	2.29	90.80	8.07	146.55
Variance 0			-0.13	-0.00	0.20			-0.06	-2.99
Variance 1			-0.06	-0.00	-0.02			-0.02	-2.43
Variance 2			0.02	-0.00	-0.09			0.01	-1.81

Notes

Sample@0919, cloudy 72

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 07:14:55

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	96.53 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	06:53:28	1200.02	17.14	4.88	27.91	0.21	96.53	9.09	96.13
Last 5	06:58:28	1500.02	17.47	4.88	27.93	0.38	96.53	9.10	96.53
Last 5	07:03:28	1800.02	16.83	4.88	27.98	0.23	96.53	9.11	96.60
Last 5	07:08:28	2100.02	16.66	4.88	27.93	0.21	96.53	9.11	96.61
Last 5	07:13:28	2400.02	16.65	4.89	28.03	0.18	96.53	9.10	96.71
Variance 0			-0.64	-0.00	0.04			0.01	0.06
Variance 1			-0.16	0.00	-0.04			0.00	0.01
Variance 2			-0.02	0.00	0.10			-0.01	0.11

Notes

Sample@0714, DUP-04@0614,Sunny 51

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 05:42:14

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	102.63 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	05:20:36	300.07	20.45	4.76	34.31	69.50	102.66	8.73	81.36
Last 5	05:25:36	600.03	20.67	4.69	33.71	46.70	102.66	8.67	86.85
Last 5	05:30:36	900.02	20.69	4.70	33.69	20.10	102.66	8.66	87.52
Last 5	05:35:36	1200.02	20.71	4.71	33.82	15.40	102.66	8.66	89.12
Last 5	05:40:36	1500.02	20.70	4.72	33.79	3.20	102.66	8.68	91.34
Variance 0			0.02	0.01	-0.02			-0.01	0.67
Variance 1			0.02	0.01	0.13			0.00	1.60
Variance 2			-0.01	0.01	-0.02			0.02	2.22

Notes

Sample@0541 Clear 51

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 08:44:06

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	112.38 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	08:21:00	300.02	20.32	5.08	148.81	54.60	112.37	7.21	113.37
Last 5	08:26:00	600.02	20.17	5.05	149.27	23.80	112.37	7.25	110.74
Last 5	08:31:00	900.02	20.36	5.02	154.52	17.80	112.37	7.28	109.19
Last 5	08:36:00	1200.02	20.53	5.00	158.85	9.00	112.37	7.35	108.30
Last 5	08:41:00	1500.03	20.52	4.99	161.88	4.60	112.37	7.37	107.89
Variance 0			0.19	-0.03	5.25			0.03	-1.55
Variance 1			0.17	-0.02	4.33			0.07	-0.89
Variance 2			-0.01	-0.01	3.03			0.02	-0.41

Notes

Sample@0843, FB-03@0815 Sunny 58

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 15:11:07

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	85 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.599391 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	59.39 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	14:50:03	2400.02	22.20	4.05	2120.65	4.48	59.40	5.45	366.31
Last 5	14:55:03	2700.02	22.20	4.05	2115.59	3.27	59.40	5.41	378.39
Last 5	15:00:03	3000.02	22.21	4.05	2115.02	3.43	59.40	5.41	389.56
Last 5	15:05:03	3300.02	22.20	4.05	2118.67	3.11	59.40	5.39	393.82
Last 5	15:10:03	3600.02	22.19	4.05	2120.69	--	--	5.39	395.18
Variance 0			0.01	-0.00	-0.56			-0.00	11.18
Variance 1			-0.01	-0.00	3.65			-0.02	4.25
Variance 2			-0.01	0.00	2.02			-0.00	1.37

Notes

Sample@1510, cloudy 71

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 13:24:16

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.420854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	22.16 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	13:02:58	300.09	22.55	6.11	537.67	3.39	21.17	0.07	55.01
Last 5	13:07:57	600.02	22.45	6.06	538.07	3.77	21.17	0.05	44.94
Last 5	13:12:57	900.02	22.35	6.02	549.63	2.94	21.17	0.05	38.02
Last 5	13:17:57	1200.02	22.35	6.01	562.31	2.64	21.17	0.04	34.65
Last 5	13:22:57	1500.02	22.32	6.01	578.45	2.44	21.17	0.04	32.40
Variance 0			-0.10	-0.03	11.57			-0.00	-6.91
Variance 1			0.00	-0.02	12.68			-0.00	-3.38
Variance 2			-0.04	0.00	16.14			-0.00	-2.24

Notes

Sample@1323,DUP-03@1223, partly cloudy 70

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 12:25:12

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	67.28 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	12:09:11	300.05	21.51	5.64	26.52	2.41	67.28	7.07	50.23
Last 5	12:14:11	600.02	21.46	5.48	26.08	1.99	67.28	7.10	62.51
Last 5	12:19:11	900.02	21.46	5.42	25.81	1.92	67.28	7.16	68.10
Last 5	12:24:11	1200.02	21.46	5.39	25.70	1.74	67.28	7.15	72.26
Last 5									
Variance 0			-0.04	-0.16	-0.43			0.02	12.28
Variance 1			-0.01	-0.06	-0.28			0.06	5.59
Variance 2			0.01	-0.03	-0.11			-0.01	4.16

Notes

Sample@1224, Cloudy 67

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-07 08:01:51

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells	Tubing Diameter	.17 in
Site Name	Plant Crist BKG Wells	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	102.09 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:50:31	300.07	20.74	4.76	32.74	3.41	102.12	8.92	152.77
Last 5	07:55:31	600.03	20.69	4.73	32.97	1.82	102.12	8.96	150.53
Last 5	08:00:31	900.02	20.70	4.73	33.10	1.56	102.12	8.96	148.78
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	-0.03	0.22			0.03	-2.24
Variance 2			0.01	-0.00	0.13			0.00	-1.75

Notes

Sample@0801, cloudy 68

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-07 07:14:20

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells	Tubing Diameter	.17 in
Site Name	Plant Crist BKG Wells	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	70.29 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:52:46	600.02	20.62	4.64	38.31	0.42	70.30	7.82	165.83
Last 5	06:57:46	900.02	20.66	4.61	39.23	0.30	70.30	8.18	165.14
Last 5	07:02:46	1200.02	20.69	4.61	40.12	0.45	70.30	8.36	160.59
Last 5	07:07:46	1500.02	20.70	4.62	40.47	0.42	70.30	8.41	157.15
Last 5	07:12:46	1800.02	20.70	4.64	40.41	0.49	70.30	8.45	154.18
Variance 0			0.03	0.01	0.89			0.17	-4.55
Variance 1			0.01	0.01	0.35			0.05	-3.44
Variance 2			0.00	0.01	-0.07			0.04	-2.96

Notes

Sample@0713, cloudy 65

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 10:20:34

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	135 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	111.59 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	09:59:08	2100.02	20.47	4.72	65.27	2.26	111.60	8.69	75.01
Last 5	10:04:08	2400.02	20.64	4.72	65.49	2.11	111.60	8.70	79.67
Last 5	10:09:08	2700.02	20.83	4.72	66.02	2.02	111.60	8.71	83.96
Last 5	10:14:08	3000.03	20.95	4.72	66.40	1.89	111.60	8.73	88.30
Last 5	10:19:08	3300.02	21.00	4.72	66.54	1.74	111.60	8.71	91.91
Variance 0			0.20	-0.00	0.53			0.01	4.30
Variance 1			0.12	-0.00	0.38			0.02	4.34
Variance 2			0.05	-0.00	0.15			-0.02	3.61

Notes

Sample@1020, Sunny 64

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-10 11:10:44

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1 BKG-5	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	81.85 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:59:10	300.02	21.68	5.24	491.14	0.74	81.88	6.16	122.64
Last 5	11:04:10	600.02	21.60	5.24	492.29	0.49	81.88	6.13	117.47
Last 5	11:09:10	900.02	21.68	5.19	492.01	0.52	81.88	6.15	113.77
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.09	0.00	1.14			-0.03	-5.16
Variance 2			0.09	-0.05	-0.27			0.03	-3.71

Notes

Sample@1109, EB-03@1120 Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 11:28:30

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum Storage	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3806832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	16.97 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:16:58	300.02	22.29	4.89	4851.26	3.18	17.00	0.04	115.24
Last 5	11:21:58	600.01	22.35	4.94	4820.22	3.39	17.00	0.04	110.06
Last 5	11:26:58	900.01	22.34	4.99	4705.52	3.19	17.00	0.02	106.10
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.07	0.04	-31.04			-0.01	-5.18
Variance 2			-0.02	0.05	-114.70			-0.01	-3.96

Notes

Sample@1127 cloudy 65

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 13:59:34

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum Storage	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	48.25 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	13:37:46	1800.02	22.46	5.23	6929.44	10.90	48.26	0.04	148.93
Last 5	13:42:46	2100.05	22.40	5.17	6943.25	9.66	48.26	0.05	147.01
Last 5	13:47:46	2400.03	22.44	5.14	6945.31	8.44	48.26	0.06	144.93
Last 5	13:52:46	2700.02	22.44	5.11	6952.18	8.36	48.26	0.06	142.90
Last 5	13:57:46	3000.02	22.45	5.09	6968.87	8.33	48.26	0.07	140.98
Variance 0			0.04	-0.04	2.06			0.01	-2.08
Variance 1			0.00	-0.03	6.87			0.01	-2.02
Variance 2			0.00	-0.02	16.69			0.01	-1.92

Notes

Sample@1359, cloudy 65

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 12:29:57

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum Storage	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	51.16 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%	+/- 10		+/- 0.2	+/- 10
Last 5	12:07:43	1500.02	21.39	4.61	102.27	24.70	51.19	2.42	123.54
Last 5	12:12:43	1800.02	21.32	4.60	105.30	13.80	51.19	2.46	128.39
Last 5	12:17:43	2100.02	21.37	4.60	104.85	8.85	51.19	2.57	132.26
Last 5	12:22:43	2400.02	21.37	4.59	108.30	6.55	51.19	2.58	135.18
Last 5	12:27:43	2700.02	21.36	4.59	107.83	4.38	51.19	2.67	137.70
Variance 0			0.05	-0.00	-0.46			0.12	3.88
Variance 1			-0.00	-0.01	3.45			0.00	2.92
Variance 2			-0.01	0.00	-0.48			0.09	2.51

Notes

Sample@1228, DUP-02@1128 cloudy, light rain 63

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 10:15:53

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum Storage	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	45.10 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	09:53:02	600.02	20.41	4.86	203.88	3.08	45.14	0.17	41.09
Last 5	09:58:02	900.02	20.46	4.81	208.53	3.63	45.14	0.14	45.44
Last 5	10:03:02	1200.02	20.62	4.78	211.94	3.34	45.14	0.14	48.13
Last 5	10:08:02	1500.02	20.70	4.75	215.20	3.06	45.14	0.14	50.18
Last 5	10:13:02	1800.03	20.75	4.74	218.27	2.97	45.14	0.14	51.51
Variance 0			0.16	-0.03	3.41			0.00	2.69
Variance 1			0.08	-0.02	3.26			-0.01	2.06
Variance 2			0.05	-0.02	3.07			-0.00	1.32

Notes

Sample@1014, EB-02@1023, Cloudy 60

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 13:32:05

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env.	Tubing Type	PE
Project Name	GYP Background 5	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	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	19 in
Depth to Water	13.77 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	13:08:50	300.07	20.70	4.41	1177.70	15.60	15.12	0.16	143.65
Last 5	13:13:50	600.02	20.78	4.42	1191.97	8.41	15.40	0.13	136.66
Last 5	13:18:50	900.01	20.78	4.44	1179.98	7.46	15.45	0.12	132.69
Last 5	13:23:50	1200.01	20.76	4.44	1150.42	4.97	15.47	0.12	129.66
Last 5	13:28:50	1500.01	20.72	4.45	1157.82	3.51	15.47	0.12	128.16
Variance 0			0.01	0.02	-11.99			-0.01	-3.98
Variance 1			-0.02	0.00	-29.56			0.00	-3.03
Variance 2			-0.04	0.01	7.40			-0.00	-1.50

Notes

Sample time 1332. Cloudy 65.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 14:40:23

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	PP
Company Name	RDH Env.	Tubing Type	PE
Project Name	GYP Background 5	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	16.33 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	14:20:22	300.05	21.63	5.55	151.37	1.87	16.34	4.50	89.93
Last 5	14:25:22	600.01	21.72	5.61	153.58	0.78	16.34	4.34	85.96
Last 5	14:30:22	900.01	21.72	5.64	158.72	1.23	16.34	4.20	83.86
Last 5	14:35:22	1200.01	21.72	5.65	158.65	0.49	16.34	4.26	83.06
Last 5									
Variance 0			0.09	0.07	2.20			-0.15	-3.97
Variance 1			0.01	0.03	5.15			-0.14	-2.10
Variance 2			-0.00	0.01	-0.08			0.05	-0.79

Notes

Sample time 1439. Cloudy 65.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-09 09:05:12

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum BKG-5	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum Storage	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3985369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	25.93 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:43:20	900.02	21.73	4.09	15238.07	15.70	25.98	0.03	123.42
Last 5	08:48:20	1200.02	21.82	4.11	15304.57	9.21	25.98	0.03	120.21
Last 5	08:53:20	1500.02	21.81	4.10	15381.96	7.76	25.98	0.03	117.92
Last 5	08:58:20	1800.03	21.71	4.12	15284.96	5.45	25.98	0.03	116.21
Last 5	09:03:20	2100.02	21.73	4.12	15408.98	3.72	25.98	0.03	114.81
Variance 0			-0.01	-0.00	77.40			-0.01	-2.29
Variance 1			-0.10	0.02	-97.00			0.00	-1.71
Variance 2			0.01	-0.00	124.01			-0.00	-1.40

Notes

Sample@0904, FB-02@0912 cloudy 59

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 07:19:09

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -2	Tubing Diameter	.17 in
Site Name	Plant Crist BKG-5	Tubing Length	80 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5770739 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.17 in
Depth to Water	57.93 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	07:02:31	300.06	19.68	4.57	44.87	10.70	58.10	5.32	174.26
Last 5	07:07:31	600.02	19.68	4.54	44.32	7.22	58.10	5.37	173.07
Last 5	07:12:31	900.02	19.72	4.54	43.95	5.29	58.10	5.39	170.54
Last 5	07:17:31	1200.02	19.71	4.54	43.75	4.72	58.10	5.44	168.57
Last 5									
Variance 0			0.00	-0.03	-0.55			0.05	-1.19
Variance 1			0.04	-0.00	-0.37			0.03	-2.53
Variance 2			-0.02	0.00	-0.21			0.04	-1.97

Notes

Sample@0718, Cloudy 63

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 10:50:03

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -2	Tubing Diameter	.17 in
Site Name	Plant Crist BKG-5	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	35.6 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	10:28:41	300.03	22.17	6.80	885.29	0.98	36.60	3.06	117.66
Last 5	10:33:41	600.02	22.09	6.81	1179.15	1.89	36.60	3.18	119.27
Last 5	10:38:41	900.02	22.02	6.67	1194.66	2.44	36.60	3.18	118.96
Last 5	10:43:41	1200.02	22.08	6.59	1188.27	2.12	36.60	3.19	117.81
Last 5	10:48:41	1500.02	22.04	6.55	1183.70	1.94	36.60	3.19	116.45
Variance 0			-0.07	-0.14	15.51			-0.00	-0.31
Variance 1			0.06	-0.08	-6.39			0.01	-1.15
Variance 2			-0.03	-0.04	-4.57			0.01	-1.36

Notes

Sample@1049, FB-01@1055 cloudy 64

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 08:44:41

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -2	Tubing Diameter	.17 in
Site Name	Plant Crist BKG-5	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	35.20 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	08:23:02	3000.02	21.69	5.31	1660.30	10.20	35.21	3.12	135.60
Last 5	08:28:02	3300.02	21.72	5.29	1668.10	8.45	35.21	3.09	136.43
Last 5	08:33:02	3600.02	21.64	5.28	1674.93	6.29	35.21	3.08	137.31
Last 5	08:38:02	3900.02	21.68	5.27	1683.67	5.11	35.21	3.08	138.02
Last 5	08:43:02	4200.02	21.65	5.26	1691.01	4.56	35.21	3.15	138.63
Variance 0			-0.08	-0.01	6.83			-0.01	0.88
Variance 1			0.04	-0.01	8.75			0.00	0.71
Variance 2			-0.03	-0.01	7.34			0.07	0.60

Notes

Sample@0843,EB-01@0853, cloudy 64

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-07 14:50:39

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -2	Tubing Diameter	.17 in
Site Name	Plant Crist BKG-5	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	49.88 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	14:26:09	1200.02	21.64	4.78	39.15	4.74	49.98	6.57	154.51
Last 5	14:33:42	300.02	21.64	4.78	40.52	12.50	49.98	6.65	150.82
Last 5	14:38:42	600.02	21.65	4.78	40.82	7.92	49.98	6.71	148.57
Last 5	14:43:42	900.03	21.59	4.78	41.26	6.33	49.98	6.74	146.47
Last 5	14:48:42	1200.03	21.53	4.78	41.60	4.74	49.98	6.73	144.70
Variance 0			0.01	-0.00	0.31			0.06	-2.25
Variance 1			-0.06	-0.00	0.43			0.03	-2.11
Variance 2			-0.06	0.00	0.34			-0.01	-1.76

Notes

Sample@1449, DUP-01@1349 Sunny-77

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-07 10:29:13

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells	Tubing Diameter	.17 in
Site Name	Plant Crist BKG Wells	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	56.45 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:07:20	900.02	21.15	4.98	35.63	12.90	56.51	8.08	145.08
Last 5	10:12:20	1200.02	21.15	4.95	35.38	9.22	56.51	8.07	143.39
Last 5	10:17:20	1500.02	21.19	4.94	35.15	7.49	56.51	8.08	142.03
Last 5	10:22:20	1800.02	21.23	4.93	34.92	5.37	56.51	8.07	140.91
Last 5	10:27:20	2100.02	21.23	4.92	34.86	4.96	56.51	8.08	139.70
Variance 0			0.04	-0.02	-0.23			0.01	-1.36
Variance 1			0.03	-0.01	-0.23			-0.01	-1.12
Variance 2			0.00	-0.01	-0.07			0.01	-1.22

Notes

Sample@1028, cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-07 11:36:25

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	BKG Wells	Tubing Diameter	.17 in
Site Name	Plant Crist BKG Wells	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.48 in
Depth to Water	90.97 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:15:21	900.02	22.22	5.76	56.73	1.10	91.45	0.33	139.08
Last 5	11:20:21	1200.02	21.95	5.76	56.36	1.11	91.95	0.25	134.71
Last 5	11:25:21	1500.02	22.27	5.75	56.31	1.19	91.45	0.23	131.79
Last 5	11:30:21	1800.02	22.27	5.75	56.30	1.22	91.45	0.19	129.28
Last 5	11:35:21	2100.02	22.30	5.75	56.31	1.19	91.45	0.19	127.83
Variance 0			0.32	-0.01	-0.05			-0.02	-2.93
Variance 1			0.01	0.00	-0.01			-0.03	-2.50
Variance 2			0.03	-0.00	0.01			-0.01	-1.46

Notes

Sample@1135, Sunny 77

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-08 09:35:50

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -2	Tubing Diameter	.17 in
Site Name	Plant Crist BKG-5	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	34.69 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	09:19:38	300.02	21.50	5.96	914.90	1.22	34.71	1.84	122.74
Last 5	09:24:38	600.02	21.46	5.97	949.36	0.68	34.71	2.36	121.68
Last 5	09:29:38	900.02	21.39	6.00	950.71	0.23	34.71	2.49	120.25
Last 5	09:34:38	1200.02	21.34	6.02	943.63	0.32	34.71	2.41	118.71
Last 5									
Variance 0			-0.04	0.01	34.46			0.52	-1.06
Variance 1			-0.07	0.02	1.35			0.13	-1.43
Variance 2			-0.05	0.03	-7.09			-0.08	-1.53

Notes

Sample@0935 cloudy 66

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-09 12:03:16

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist plant	Tubing Diameter	.17 in
Site Name	Crist BKG -6	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	90.93 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	11:42:18	600.02	18.63	4.99	37.57	0.87	90.99	8.13	75.28
Last 5	11:47:18	900.02	18.52	4.99	37.58	0.66	90.99	8.12	74.14
Last 5	11:52:18	1200.02	18.96	4.99	37.55	0.56	90.99	8.10	74.61
Last 5	11:57:18	1500.02	18.87	5.00	37.33	0.59	90.99	8.02	74.15
Last 5	12:02:18	1800.02	18.87	4.99	37.40	0.47	90.99	8.10	73.74
Variance 0			0.45	-0.00	-0.03			-0.02	0.47
Variance 1			-0.09	0.00	-0.22			-0.08	-0.46
Variance 2			0.00	-0.00	0.07			0.07	-0.41

Notes

Sample@1203, Sunny 52

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-11 10:03:11

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	120 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.1 in
Depth to Water	96.27 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	09:39:41	300.12	20.21	4.63	26.79	4.41	96.35	5.89	76.84
Last 5	09:44:40	600.03	20.44	4.82	25.82	0.93	96.35	7.60	63.95
Last 5	09:49:40	900.04	20.44	4.84	25.77	0.82	96.37	8.19	61.49
Last 5	09:54:40	1200.04	20.57	4.85	25.68	0.78	96.37	8.08	60.35
Last 5	09:59:40	1500.03	20.48	4.87	25.73	0.64	96.38	8.28	60.03
Variance 0			-0.00	0.02	-0.05			0.59	-2.46
Variance 1			0.13	0.02	-0.09			-0.11	-1.14
Variance 2			-0.09	0.01	0.05			0.20	-0.32

Notes

Sample time 1002. P/C 71.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 16:00:06

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.11 in
Depth to Water	102.71 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	15:43:04	300.06	21.91	4.65	28.60	2.91	102.82	8.91	66.03
Last 5	15:48:04	600.06	21.61	4.73	28.40	1.77	102.82	9.04	59.04
Last 5	15:53:04	900.04	21.47	4.75	28.33	1.23	102.82	9.03	55.90
Last 5	15:58:04	1200.03	21.46	4.79	28.31	1.06	102.82	9.07	54.70
Last 5									
Variance 0			-0.30	0.08	-0.20			0.13	-6.99
Variance 1			-0.14	0.02	-0.07			-0.01	-3.14
Variance 2			-0.01	0.04	-0.02			0.05	-1.19

Notes

Sample time 1600. P/C 76. FB-02 sample time 1540.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 14:38:25

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.08 in
Depth to Water	112.35 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	14:14:57	300.06	23.16	4.94	134.72	32.20	112.40	7.99	98.24
Last 5	14:19:57	600.01	22.13	4.94	138.52	11.50	112.42	7.78	95.28
Last 5	14:24:57	900.03	21.95	4.94	141.27	3.98	112.43	7.92	94.38
Last 5	14:29:57	1200.03	21.87	4.95	142.71	1.94	112.43	7.94	95.36
Last 5	14:34:57	1500.03	21.85	4.95	143.24	1.03	112.43	7.95	95.71
Variance 0			-0.18	0.00	2.75			0.14	-0.90
Variance 1			-0.08	0.02	1.44			0.02	0.97
Variance 2			-0.02	-0.00	0.53			0.01	0.35

Notes

Sample time 1438. EB-03 sample time 1355. P/C 76.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-11 15:48:08

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	85 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.599391 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	59.29 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%	+/- 5		+/- 0.2	+/- 10
Last 5	15:24:14	1800.03	22.53	4.02	2345.04	3.25	59.35	4.18	414.69
Last 5	15:29:14	2100.03	22.49	4.01	2346.18	2.54	59.35	4.09	420.47
Last 5	15:34:14	2400.03	22.31	4.01	2347.42	1.93	59.35	4.12	430.49
Last 5	15:39:14	2700.03	22.40	4.01	2346.29	1.62	59.35	4.15	447.00
Last 5	15:44:14	3000.03	22.40	4.01	2346.60	1.54	59.35	4.15	457.42
Variance 0			-0.18	-0.00	1.24			0.03	10.01
Variance 1			0.09	-0.00	-1.13			0.02	16.51
Variance 2			-0.00	-0.00	0.31			-0.00	10.43

Notes

Sample time 1548. Sunny 72.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-11 14:05:51

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist 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-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.420854 L
Well Total Depth	43.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.01 in
Depth to Water	21.14 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	13:39:24	3300.01	22.56	6.04	549.27	16.00	21.25	-0.01	35.40
Last 5	13:44:24	3600.04	22.56	6.04	550.54	13.40	21.25	-0.01	34.44
Last 5	13:49:24	3900.04	22.57	6.05	549.94	12.10	21.25	-0.00	33.40
Last 5	13:54:24	4200.04	22.67	6.05	549.92	9.84	21.25	-0.01	32.82
Last 5	13:59:24	4500.04	22.72	6.04	550.56	9.14	21.25	-0.01	32.10
Variance 0			0.01	0.00	-0.60			0.00	-1.04
Variance 1			0.09	0.00	-0.02			-0.00	-0.58
Variance 2			0.06	-0.00	0.64			-0.00	-0.73

Notes

Sample time 1402. Dup.-03 fake time 1302. P/C 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-11 11:55:04

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	95 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	88.0 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.03 in
Depth to Water	66.70 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%	+/- 5		+/- 0.2	+/- 10
Last 5	11:36:20	300.02	21.77	5.13	24.52	1.69	66.83	7.11	67.95
Last 5	11:41:20	600.02	21.51	5.12	24.44	1.01	66.83	7.03	67.19
Last 5	11:46:20	900.02	21.46	5.12	24.40	0.72	66.83	7.10	67.55
Last 5	11:51:20	1200.02	21.42	5.12	24.25	0.99	66.83	7.12	67.57
Last 5									
Variance 0			-0.27	-0.00	-0.08			-0.09	-0.75
Variance 1			-0.05	0.00	-0.04			0.07	0.36
Variance 2			-0.04	-0.01	-0.15			0.02	0.02

Notes

Sample time 1153. P/C 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-09 10:08:53

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist plant	Tubing Diameter	.17 in
Site Name	Crist BKG -6	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	102.41 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	09:46:15	600.02	17.65	5.04	29.98	60.40	102.42	8.93	77.38
Last 5	09:51:15	900.02	17.90	5.02	30.57	35.60	102.42	8.94	76.83
Last 5	09:56:15	1200.02	18.01	5.01	31.25	14.90	102.42	8.97	76.59
Last 5	10:01:15	1500.02	18.01	5.01	31.14	8.71	102.42	8.94	76.03
Last 5	10:06:15	1800.02	18.15	5.00	31.22	2.44	102.42	8.96	75.81
Variance 0			0.11	-0.01	0.68			0.03	-0.25
Variance 1			-0.00	-0.00	-0.11			-0.03	-0.55
Variance 2			0.14	-0.01	0.09			0.01	-0.22

Notes

Sample@1008, DUP-01@0908, Sunny 47

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-09 09:05:21

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist plant	Tubing Diameter	.17 in
Site Name	Crist BKG -6	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	70.56 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:43:50	900.02	17.79	4.94	40.00	3.32	70.60	8.43	86.60
Last 5	08:48:50	1200.02	17.92	4.94	40.13	3.04	70.60	8.44	85.25
Last 5	08:53:50	1500.02	18.07	4.95	40.17	2.89	70.60	8.41	84.83
Last 5	08:58:50	1800.02	18.27	4.95	39.94	2.71	70.60	8.43	83.87
Last 5	09:03:50	2100.03	18.25	4.94	39.99	2.24	70.60	8.43	83.22
Variance 0			0.16	0.00	0.04			-0.03	-0.43
Variance 1			0.20	-0.00	-0.23			0.02	-0.95
Variance 2			-0.02	-0.01	0.05			-0.00	-0.65

Notes

Sample@0904, Sunny 40

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 12:55:13

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	135 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	111.57 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	12:38:40	300.02	22.23	4.61	51.33	1.56	111.64	8.91	82.44
Last 5	12:43:40	600.01	21.77	4.63	51.52	0.93	111.64	8.95	79.84
Last 5	12:48:40	900.01	21.95	4.66	52.67	0.63	111.64	8.91	79.69
Last 5	12:53:40	1200.03	21.89	4.67	53.06	0.56	111.64	8.93	81.40
Last 5									
Variance 0			-0.46	0.02	0.18			0.04	-2.60
Variance 1			0.18	0.03	1.16			-0.04	-0.15
Variance 2			-0.06	0.01	0.39			0.03	1.71

Notes

Sample time 1254. P/C 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 11:30:16

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-6	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	121 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.1 in
Depth to Water	81.84 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	11:07:56	3300.02	22.03	4.81	909.17	1.14	81.94	4.13	140.82
Last 5	11:12:56	3600.02	22.09	4.82	919.94	1.12	81.94	4.05	142.68
Last 5	11:17:56	3900.02	22.12	4.82	945.95	1.33	81.94	3.92	145.79
Last 5	11:22:56	4200.02	22.09	4.83	963.27	1.03	81.94	3.82	148.50
Last 5	11:27:56	4500.02	22.04	4.84	976.06	1.08	81.94	3.74	150.48
Variance 0			0.03	0.00	26.01			-0.12	3.12
Variance 1			-0.03	0.01	17.32			-0.10	2.71
Variance 2			-0.04	0.01	12.79			-0.08	1.98

Notes

Sample time 1130. Sunny 69.

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 13:35:48

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	15.44 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	13:14:21	300.03	22.64	5.07	1830.39	1.98	15.46	3.05	65.91
Last 5	13:19:21	600.03	22.67	5.04	1971.96	1.39	15.46	2.81	75.41
Last 5	13:24:21	900.03	22.48	5.05	2003.43	1.21	15.46	2.81	81.27
Last 5	13:29:21	1200.03	22.44	5.04	2023.10	1.16	15.46	2.75	84.22
Last 5	13:34:21	1500.03	22.49	5.04	2046.05	1.13	15.46	2.81	86.56
Variance 0			-0.20	0.00	31.47			0.01	5.86
Variance 1			-0.04	-0.00	19.67			-0.06	2.95
Variance 2			0.05	-0.00	22.95			0.06	2.34

Notes

Sample@1335 Sunny 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-13 08:21:47

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	47.06 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%	+/- 10		+/- 0.2	+/- 10
Last 5	08:00:22	2400.02	22.26	5.26	5893.31	9.88	47.15	0.11	42.38
Last 5	08:05:22	2700.02	22.22	5.22	5867.59	8.79	47.15	0.11	41.84
Last 5	08:10:22	3000.02	22.17	5.18	5894.15	6.45	47.15	0.11	41.72
Last 5	08:15:22	3300.02	22.17	5.16	5900.08	5.59	47.15	0.10	42.91
Last 5	08:20:22	3600.02	22.17	5.14	5884.31	4.88	47.15	0.10	44.25
Variance 0			-0.05	-0.04	26.56			-0.00	-0.13
Variance 1			-0.00	-0.02	5.93			-0.00	1.20
Variance 2			-0.01	-0.02	-15.77			-0.00	1.34

Notes

Sample@0820, FB-03@0730 ,Sunny 61

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-13 09:39:53

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	50.66 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	09:17:42	600.02	21.73	4.75	102.36	4.91	50.66	2.57	110.97
Last 5	09:22:42	900.02	21.77	4.76	104.30	5.26	50.66	2.96	103.24
Last 5	09:27:42	1200.02	21.87	4.76	105.30	5.02	50.66	3.06	101.05
Last 5	09:32:42	1500.02	22.04	4.75	105.53	4.99	50.66	3.07	102.91
Last 5	09:37:42	1800.02	22.03	4.74	105.32	4.81	50.66	3.10	105.26
Variance 0			0.09	-0.00	1.00			0.10	-2.20
Variance 1			0.17	-0.01	0.23			0.01	1.87
Variance 2			-0.00	-0.00	-0.22			0.03	2.34

Notes

Sample@0938, DUP-05@0838, EB-03@1000 , Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 09:16:34

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.23 in
Depth to Water	44.20 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	08:54:38	300.05	20.89	4.56	215.68	6.38	44.23	0.37	97.96
Last 5	08:59:38	600.02	21.05	4.59	221.71	5.31	44.23	0.32	82.96
Last 5	09:04:38	900.02	21.10	4.61	227.80	4.72	44.23	0.33	74.31
Last 5	09:09:38	1200.02	21.19	4.62	231.75	3.73	44.23	0.33	69.26
Last 5	09:14:38	1500.02	21.25	4.63	236.55	2.51	44.23	0.35	65.49
Variance 0			0.05	0.02	6.09			0.01	-8.65
Variance 1			0.09	0.01	3.95			0.00	-5.05
Variance 2			0.06	0.01	4.81			0.02	-3.77

Notes

Sample@0915 Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 11:36:37

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	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	12 ft	Total Volume Pumped	42 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	11:14:52	5100.02	20.74	4.39	1367.95	0.85	13.36	0.15	59.52
Last 5	11:19:52	5400.02	20.74	4.39	1368.88	0.88	13.36	0.16	43.02
Last 5	11:24:52	5700.02	20.78	4.40	1366.17	0.69	13.36	0.16	36.50
Last 5	11:29:52	6000.02	20.95	4.40	1359.32	0.59	13.36	0.14	29.97
Last 5	11:34:52	6300.02	20.82	4.40	1364.40	0.55	13.36	0.15	30.41
Variance 0			0.03	0.01	-2.71			0.00	-6.52
Variance 1			0.17	-0.00	-6.85			-0.02	-6.53
Variance 2			-0.13	0.01	5.08			0.01	0.45

Notes

Sample@1135 partly cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 12:38:50

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	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	0.03 in
Depth to Water	15.02 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:27:08	300.06	21.21	5.73	126.48	0.35	15.05	3.52	51.69
Last 5	12:32:08	600.02	21.12	5.72	126.12	0.37	15.05	3.53	45.91
Last 5	12:37:08	900.02	21.11	5.71	124.13	0.32	15.05	3.43	43.01
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.10	-0.01	-0.36			0.01	-5.78
Variance 2			-0.00	-0.02	-1.99			-0.10	-2.90

Notes

Sample@1238 partly cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-12 14:34:12

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG-6 GYP	Tubing Diameter	.17 in
Site Name	Plant Crist Gypsum BKG-6	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.19 in
Depth to Water	24.20 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	14:17:03	300.02	23.40	4.17	14777.29	4.82	24.39	0.19	103.73
Last 5	14:22:03	600.02	23.20	4.18	14684.73	2.88	24.39	0.15	88.13
Last 5	14:27:03	900.02	23.10	4.20	14490.80	2.14	24.39	0.13	85.76
Last 5	14:32:03	1200.02	23.07	4.24	14209.02	2.07	24.39	0.13	78.27
Last 5									
Variance 0			-0.20	0.00	-92.55			-0.04	-15.61
Variance 1			-0.10	0.02	-193.94			-0.02	-2.37
Variance 2			-0.03	0.03	-281.78			-0.00	-7.48

Notes

Sample@1433,DUP-04@1333 Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-10 07:38:39

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	LF-2 BKG-6	Tubing Diameter	.17 in
Site Name	Crist LF-2	Tubing Length	80 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5770739 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.16 in
Depth to Water	56.96 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	07:17:00	1200.02	17.45	4.74	45.99	1.62	57.11	5.59	55.07
Last 5	07:22:00	1500.02	17.54	4.80	45.46	1.55	57.12	5.41	34.66
Last 5	07:27:00	1800.02	17.58	4.80	45.06	1.23	57.12	5.29	26.73
Last 5	07:32:00	2100.02	17.63	4.82	44.82	1.00	57.12	5.17	18.99
Last 5	07:37:00	2400.02	17.63	4.83	44.72	0.88	57.12	5.14	17.46
Variance 0			0.05	-0.00	-0.40			-0.12	-7.93
Variance 1			0.04	0.02	-0.24			-0.11	-7.74
Variance 2			0.00	0.01	-0.10			-0.03	-1.53

Notes

Sample@0738, Partly cloudy 44

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-10 08:48:10

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	LF-2 BKG-6	Tubing Diameter	.17 in
Site Name	Crist LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW -303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	32.44 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:26:24	900.02	20.03	7.01	949.36	1.17	32.49	1.09	19.68
Last 5	08:31:24	1200.02	20.30	6.89	996.64	1.26	32.49	1.67	19.98
Last 5	08:36:24	1500.02	19.94	6.80	1002.86	1.03	32.49	1.94	19.79
Last 5	08:41:24	1800.02	19.94	6.75	1001.49	0.98	32.49	2.01	19.44
Last 5	08:46:24	2100.02	20.03	6.72	1000.47	0.85	32.49	2.07	19.39
Variance 0			-0.36	-0.09	6.21			0.26	-0.19
Variance 1			0.00	-0.04	-1.36			0.07	-0.35
Variance 2			0.09	-0.04	-1.03			0.06	-0.05

Notes

Sample@0847, DUP-02@0747. Partly cloudy 51

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-10 12:21:50

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	LF-2 BKG-6	Tubing Diameter	.17 in
Site Name	Crist LF-2	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	31.97 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:05:34	300.02	22.04	5.24	1700.38	0.74	31.98	0.19	25.14
Last 5	12:10:34	600.02	21.82	5.14	1777.76	0.50	31.98	0.12	15.16
Last 5	12:15:34	900.02	21.90	5.08	1799.11	0.30	31.98	0.10	14.65
Last 5	12:20:34	1200.02	21.98	5.04	1808.51	0.33	31.98	0.08	17.39
Last 5									
Variance 0			-0.22	-0.10	77.38			-0.07	-9.97
Variance 1			0.09	-0.06	21.34			-0.02	-0.52
Variance 2			0.07	-0.04	9.40			-0.02	2.74

Notes

Sample@1221,FB-01@1215 Cloudy 60

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-10 13:24:38

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	LF-2 BKG-6	Tubing Diameter	.17 in
Site Name	Crist LF-2	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	48.14 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	13:03:26	300.06	20.48	4.99	37.56	0.41	48.15	5.96	51.99
Last 5	13:08:26	600.02	20.45	4.97	37.18	0.25	48.15	6.15	48.81
Last 5	13:13:26	900.02	20.57	4.95	37.76	0.33	48.15	6.34	49.60
Last 5	13:18:26	1200.02	20.46	4.94	37.84	0.38	48.15	6.39	51.09
Last 5	13:23:26	1500.02	20.44	4.96	37.64	0.42	48.15	6.42	52.94
Variance 0			0.12	-0.02	0.57			0.19	0.79
Variance 1			-0.11	-0.00	0.08			0.05	1.50
Variance 2			-0.03	0.02	-0.20			0.03	1.84

Notes

Sample@1323, EB-01@1335 cloudy 60

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-09 12:52:46

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist plant	Tubing Diameter	.17 in
Site Name	Crist BKG -6	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	56.21 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:41:28	300.02	18.92	5.07	36.04	0.50	56.28	8.33	76.60
Last 5	12:46:28	600.03	19.01	5.06	35.97	0.44	56.28	8.31	77.12
Last 5	12:51:28	900.02	19.05	5.05	35.49	0.35	56.28	8.30	77.41
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.09	-0.01	-0.07			-0.01	0.52
Variance 2			0.04	-0.01	-0.48			-0.02	0.30

Notes

Sample@1252, Sunny 53

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-09 13:50:02

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist plant	Tubing Diameter	.17 in
Site Name	Crist BKG -6	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.65 in
Depth to Water	90.96 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	13:29:11	600.02	19.19	5.98	46.49	3.69	91.61	0.37	10.49
Last 5	13:34:11	900.02	19.38	5.98	46.32	3.75	91.61	0.26	9.55
Last 5	13:39:11	1200.02	19.14	5.98	46.07	3.80	91.61	0.21	9.31
Last 5	13:44:11	1500.02	19.17	5.98	45.94	3.94	91.61	0.19	8.88
Last 5	13:49:11	1800.02	19.32	5.98	45.98	3.86	91.61	0.18	7.53
Variance 0			-0.24	0.00	-0.25			-0.04	-0.24
Variance 1			0.03	-0.00	-0.13			-0.03	-0.44
Variance 2			0.15	0.00	0.04			-0.00	-1.34

Notes

Sample@1349, Sunny 54

Grab Samples

Product Name: Low-Flow System

Date: 2017-01-10 11:10:11

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	LF-2 BKG-6	Tubing Diameter	.17 in
Site Name	Crist LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	30.30 ft	Total Volume Pumped	34 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	10:48:33	3900.02	20.35	5.99	872.33	0.21	30.34	2.40	-42.84
Last 5	10:53:33	4200.02	20.43	5.97	872.60	0.25	30.34	2.44	-47.68
Last 5	10:58:33	4500.02	20.39	6.00	870.73	0.20	30.34	2.41	-63.02
Last 5	11:03:33	4800.02	20.39	5.98	870.25	0.27	30.34	2.43	-63.39
Last 5	11:08:35	5102.02	20.43	6.00	869.44	0.31	30.34	2.46	-68.50
Variance 0			-0.04	0.03	-1.87			-0.03	-15.34
Variance 1			0.00	-0.02	-0.49			0.02	-0.37
Variance 2			0.04	0.02	-0.81			0.03	-5.11

Notes

Sample@1109, cloudy 57

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-13 10:12:25

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist BKG Wells BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	121 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.01 in
Depth to Water	89.94 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	09:54:52	300.06	19.49	4.49	36.10	4.04	90.05	8.39	106.35
Last 5	09:59:52	600.02	19.41	4.52	35.59	2.90	90.05	8.30	105.28
Last 5	10:04:52	900.03	19.54	4.54	35.79	2.01	90.05	8.21	106.59
Last 5	10:09:52	1200.03	19.54	4.57	35.65	1.70	90.05	8.17	106.23
Last 5									
Variance 0			-0.08	0.04	-0.50			-0.09	-1.07
Variance 1			0.13	0.02	0.20			-0.10	1.31
Variance 2			-0.01	0.03	-0.14			-0.04	-0.36

Notes

Sample time 1012. Cloudy 52.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-14 09:43:22

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	120 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	95.41 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	09:25:21	300.09	18.47	4.54	26.13	0.93	95.50	9.42	100.67
Last 5	09:30:21	600.02	19.50	4.62	25.60	0.72	95.51	9.16	104.27
Last 5	09:35:21	900.02	19.59	4.67	25.51	0.61	95.51	9.14	105.42
Last 5	09:40:21	1200.02	19.59	4.71	25.54	0.62	95.51	9.11	110.83
Last 5									
Variance 0			1.03	0.08	-0.53			-0.26	3.60
Variance 1			0.09	0.05	-0.09			-0.02	1.15
Variance 2			0.01	0.04	0.03			-0.03	5.40

Notes

Sample time 0944. Cloudy 49.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-15 12:35:28

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	101.98 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	12:18:16	300.10	19.70	4.67	31.82	7.97	101.97	9.27	126.61
Last 5	12:23:16	600.02	20.41	4.72	31.34	2.04	101.97	9.06	137.38
Last 5	12:28:16	900.02	20.48	4.76	31.23	0.86	101.97	9.01	139.68
Last 5	12:33:16	1200.02	20.54	4.81	31.22	0.84	101.97	9.00	138.43
Last 5									
Variance 0			0.71	0.06	-0.48			-0.21	10.77
Variance 1			0.07	0.04	-0.11			-0.05	2.30
Variance 2			0.06	0.04	-0.01			-0.02	-1.26

Notes

Sample time 1236. Sunny 48.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-15 11:18:53

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	111.78 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	10:56:17	600.02	19.10	5.03	156.30	4.70	111.80	8.07	147.97
Last 5	11:01:17	900.02	19.36	4.99	157.41	2.49	111.79	8.06	149.07
Last 5	11:06:17	1200.01	19.59	4.98	157.83	1.79	111.79	8.07	146.90
Last 5	11:11:17	1500.01	19.61	5.01	157.70	1.56	111.79	8.07	144.35
Last 5	11:16:17	1800.05	19.57	5.03	157.10	1.21	111.79	8.01	142.14
Variance 0			0.22	-0.00	0.42			0.00	-2.17
Variance 1			0.03	0.03	-0.13			0.00	-2.55
Variance 2			-0.04	0.02	-0.60			-0.06	-2.21

Notes

Sample time 1119. Sunny 45.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-14 16:31:17

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	85 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.599391 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.02 in
Depth to Water	58.91 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	16:06:54	300.07	20.88	4.06	1958.52	18.10	59.02	6.30	523.73
Last 5	16:11:54	600.03	21.64	4.06	1918.11	13.80	59.02	5.93	557.84
Last 5	16:16:54	900.03	21.80	4.06	1895.26	6.57	59.03	5.86	558.16
Last 5	16:21:54	1200.03	21.90	4.07	1875.20	3.53	59.03	5.80	553.43
Last 5	16:26:54	1500.03	21.95	4.06	1872.52	2.45	59.03	5.81	555.08
Variance 0			0.16	-0.00	-22.85			-0.08	0.32
Variance 1			0.10	0.01	-20.06			-0.05	-4.73
Variance 2			0.05	-0.00	-2.68			0.01	1.65

Notes

Sample time 1632. EB-01 sample time 1525. P/C 59.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-14 14:06:33

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.420854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.02 in
Depth to Water	21.49 ft	Total Volume Pumped	50 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	13:41:07	6300.04	20.79	6.11	488.65	13.60	21.61	0.05	-14.56
Last 5	13:46:07	6600.04	20.59	6.10	487.44	12.70	21.61	0.05	-15.59
Last 5	13:51:07	6900.04	20.59	6.12	493.29	11.40	21.61	0.05	-15.21
Last 5	13:56:07	7200.04	20.69	6.10	485.70	10.90	21.61	0.05	-15.05
Last 5	14:01:07	7500.04	20.66	6.11	488.34	9.96	21.61	0.05	-14.97
Variance 0			-0.01	0.01	5.85			-0.00	0.37
Variance 1			0.10	-0.02	-7.59			-0.00	0.17
Variance 2			-0.04	0.01	2.64			-0.00	0.08

Notes

Sample time 1407. Dup-02 fake time 1307. FB-01 sample time 1248.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-14 11:01:38

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	95 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.01 in
Depth to Water	66.73 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	10:44:45	300.05	20.39	5.00	24.26	1.71	66.84	8.01	87.15
Last 5	10:49:45	600.02	20.28	5.05	23.87	1.06	66.84	7.98	86.29
Last 5	10:54:45	900.01	20.21	5.06	23.65	0.79	66.84	7.96	87.95
Last 5	10:59:45	1200.01	20.30	5.05	23.53	0.84	66.84	7.88	88.19
Last 5									
Variance 0			-0.10	0.05	-0.38			-0.03	-0.86
Variance 1			-0.08	0.01	-0.22			-0.03	1.66
Variance 2			0.09	-0.01	-0.13			-0.08	0.24

Notes

Sample time 1102. Cloudy 53.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-13 11:38:17

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist BKG Wells BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	126 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.02 in
Depth to Water	100.94 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	11:20:03	300.06	19.43	4.63	27.75	2.37	101.06	9.27	100.95
Last 5	11:25:03	600.02	19.59	4.66	27.70	2.77	101.06	9.12	98.96
Last 5	11:30:03	900.01	19.76	4.72	27.58	1.12	101.06	9.12	104.98
Last 5	11:35:03	1200.01	19.77	4.74	27.65	1.05	101.06	9.11	99.70
Last 5									
Variance 0			0.16	0.03	-0.05			-0.15	-1.99
Variance 1			0.18	0.05	-0.12			-0.00	6.01
Variance 2			0.00	0.02	0.07			-0.02	-5.28

Notes

Sample time 1138. Light rain 52.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-13 13:35:55

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist BKG Wells BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	100 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	68.82 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	13:18:50	300.02	19.68	4.50	38.92	1.00	68.85	8.86	100.26
Last 5	13:23:50	600.01	20.09	4.57	37.94	2.96	68.85	8.60	102.27
Last 5	13:28:50	900.02	20.12	4.60	37.79	2.20	68.85	8.56	103.67
Last 5	13:33:50	1200.01	20.24	4.63	37.57	1.52	68.85	8.56	104.37
Last 5									
Variance 0			0.42	0.07	-0.99			-0.26	2.01
Variance 1			0.03	0.03	-0.14			-0.04	1.40
Variance 2			0.12	0.03	-0.23			0.00	0.70

Notes

Sample time 1336. Dup-01 fake time 1236. Cloudy 54.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-14 17:43:54

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	135 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	110.84 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	17:20:09	300.02	20.30	4.79	50.34	2.64	110.91	8.99	142.08
Last 5	17:25:09	600.01	20.41	4.78	50.07	1.44	110.91	8.80	130.31
Last 5	17:30:09	900.01	20.17	4.78	51.08	1.22	110.91	8.90	123.14
Last 5	17:35:09	1200.02	20.01	4.77	51.92	0.79	110.91	8.98	119.03
Last 5	17:40:09	1500.02	19.99	4.77	51.90	0.55	110.91	8.91	115.10
Variance 0			-0.24	-0.01	1.01			0.10	-7.17
Variance 1			-0.15	-0.01	0.84			0.08	-4.12
Variance 2			-0.03	-0.00	-0.02			-0.07	-3.92

Notes

Sample time 1745. Sunny 58.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-15 09:55:14

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	121 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.05 in
Depth to Water	81.46 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	09:29:48	2400.02	20.03	4.82	936.57	2.08	81.61	4.47	541.26
Last 5	09:34:48	2700.02	20.16	4.83	973.81	1.85	81.61	4.27	537.36
Last 5	09:39:48	3000.02	19.94	4.84	999.18	1.61	81.61	4.16	532.62
Last 5	09:44:48	3300.02	19.81	4.85	1021.00	1.52	81.61	4.07	543.35
Last 5	09:49:48	3600.02	19.96	4.86	1044.56	1.26	81.61	3.96	544.05
Variance 0			-0.21	0.01	25.38			-0.11	-4.74
Variance 1			-0.13	0.01	21.81			-0.09	10.73
Variance 2			0.15	0.01	23.56			-0.11	0.69

Notes

Sample time 0955. Sunny 38.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-17 09:43:20

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	16.86 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%	+/- 5		+/- 0.2	+/- 10
Last 5	09:21:06	1799.99	20.70	4.98	3766.63	2.42	16.84	0.87	279.02
Last 5	09:26:06	2100.04	20.67	5.01	3785.09	1.60	16.85	0.77	292.44
Last 5	09:31:06	2400.02	20.70	5.02	3794.94	2.49	16.85	0.75	300.04
Last 5	09:36:06	2699.97	20.70	5.03	3800.08	1.39	16.85	0.68	307.03
Last 5	09:41:06	2999.97	20.77	5.02	3829.86	1.53	16.85	0.65	304.52
Variance 0			0.03	0.01	9.85			-0.02	7.61
Variance 1			-0.00	0.01	5.14			-0.07	6.99
Variance 2			0.08	-0.00	29.78			-0.03	-2.51

Notes

Sample time 0944. Dup-05 fake time 0844. Sunny 51.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 14:06:55

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	47.90 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	13:48:28	300.06	21.94	5.33	3444.55	12.60	47.97	0.30	95.15
Last 5	13:53:28	600.02	22.26	5.27	3203.97	6.40	47.97	0.21	84.34
Last 5	13:58:28	900.01	22.31	5.12	3162.14	2.73	47.97	0.21	80.93
Last 5	14:03:28	1200.04	22.28	5.10	3154.47	1.68	47.97	0.26	78.29
Last 5									
Variance 0			0.32	-0.06	-240.58			-0.09	-10.81
Variance 1			0.05	-0.15	-41.83			-0.00	-3.41
Variance 2			-0.03	-0.01	-7.67			0.05	-2.64

Notes

Sample time 1407. Dup-04 fake time 1307. P/C 58.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 12:07:36

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	51.07 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	11:45:06	600.02	21.38	4.59	82.16	2.18	51.16	0.95	48.17
Last 5	11:50:06	900.01	21.33	4.64	84.38	1.30	51.16	1.40	48.80
Last 5	11:55:06	1200.01	21.37	4.67	86.18	1.13	51.16	1.93	50.56
Last 5	12:00:06	1500.02	21.24	4.68	86.87	1.03	51.16	2.10	52.68
Last 5	12:05:06	1800.03	21.26	4.68	86.76	1.05	51.16	2.10	53.43
Variance 0			0.04	0.03	1.80			0.53	1.76
Variance 1			-0.13	0.01	0.68			0.16	2.11
Variance 2			0.03	-0.00	-0.10			-0.00	0.75

Notes

Sample time 1208. Sunny 53.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 15:46:27

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	65 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.04 in
Depth to Water	44.64 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	15:24:35	600.02	21.47	4.62	198.16	1.22	44.78	0.38	56.65
Last 5	15:29:35	900.02	21.46	4.63	205.27	1.05	44.78	0.39	58.51
Last 5	15:34:35	1200.02	21.37	4.65	217.26	0.89	44.78	0.45	63.94
Last 5	15:39:35	1500.01	21.40	4.65	221.15	0.59	44.78	0.45	69.16
Last 5	15:44:35	1800.02	21.32	4.66	226.16	0.54	44.78	0.46	74.02
Variance 0			-0.10	0.02	11.99			0.06	5.43
Variance 1			0.03	0.01	3.89			0.00	5.22
Variance 2			-0.07	0.00	5.00			0.02	4.86

Notes

Sample time 1547. Cloudy 58.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 17:06:18

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	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	18.06 in
Depth to Water	13.02 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	16:42:11	600.02	19.41	4.33	1186.92	4.21	14.68	0.22	128.39
Last 5	16:47:11	900.01	19.36	4.34	1186.85	3.67	14.68	0.19	116.11
Last 5	16:52:11	1200.02	19.32	4.36	1162.02	1.55	14.68	0.19	109.44
Last 5	16:57:11	1500.01	19.32	4.37	1178.47	1.21	14.68	0.16	105.82
Last 5	17:02:11	1800.04	19.32	4.37	1163.46	1.31	14.68	0.17	101.34
Variance 0			-0.04	0.01	-24.83			0.00	-6.67
Variance 1			0.00	0.01	16.46			-0.03	-3.62
Variance 2			-0.00	0.00	-15.01			0.01	-4.48

Notes

Sample time 1705. Cloudy 61.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 18:05:53

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	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	0.01 in
Depth to Water	15.91 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	17:48:15	300.05	19.08	5.72	142.93	1.13	15.92	3.59	51.56
Last 5	17:53:15	600.02	19.37	5.80	144.40	0.69	15.92	3.48	48.09
Last 5	17:58:15	900.01	19.43	5.82	142.83	0.65	15.92	3.44	50.28
Last 5	18:03:15	1200.04	19.37	5.84	145.18	0.66	15.92	3.43	50.51
Last 5									
Variance 0			0.29	0.08	1.47			-0.10	-3.47
Variance 1			0.06	0.01	-1.58			-0.04	2.19
Variance 2			-0.06	0.02	2.35			-0.01	0.23

Notes

Sample time 1806. P/C 59.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-17 11:27:24

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	25.78 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	11:09:17	300.02	22.22	4.18	11342.49	1.24	25.83	0.18	110.80
Last 5	11:14:17	600.02	22.35	4.20	11489.12	0.95	25.83	0.13	102.87
Last 5	11:19:17	900.02	22.35	4.21	11551.86	0.84	25.83	0.11	97.94
Last 5	11:24:17	1200.02	22.44	4.22	11641.89	0.75	25.83	0.09	93.56
Last 5									
Variance 0			0.13	0.02	146.63			-0.05	-7.93
Variance 1			-0.00	0.01	62.74			-0.02	-4.92
Variance 2			0.09	0.00	90.03			-0.02	-4.39

Notes

Sample time 1127. FB-03 sample time 1030. EB-03 sample time 1040. Sunny 61.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-15 14:44:45

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-2 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	80 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5770739 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	57.14 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	14:24:48	600.06	19.58	4.76	41.90	9.95	57.45	5.46	90.86
Last 5	14:29:48	900.02	19.54	4.81	41.15	4.65	57.45	5.34	90.77
Last 5	14:34:48	1200.02	19.58	4.82	41.00	3.61	57.45	5.27	89.03
Last 5	14:39:48	1500.01	19.59	4.82	40.84	2.63	57.45	5.25	87.81
Last 5									
Variance 0			-0.04	0.06	-0.75			-0.12	-0.08
Variance 1			0.03	0.01	-0.15			-0.08	-1.75
Variance 2			0.02	0.00	-0.17			-0.02	-1.22

Notes

Sample time 1443. Sunny 51.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 10:32:02

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-2 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	65 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	35.73 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	10:14:37	300.06	20.92	6.62	1259.12	6.33	35.82	4.50	86.50
Last 5	10:19:37	600.02	21.46	6.55	1223.31	3.51	35.82	4.35	79.76
Last 5	10:24:37	900.01	21.37	6.53	1204.42	3.38	35.82	4.27	75.23
Last 5	10:29:37	1200.01	21.55	6.50	1188.87	3.00	35.82	4.26	71.64
Last 5									
Variance 0			0.54	-0.06	-35.80			-0.15	-6.73
Variance 1			-0.09	-0.03	-18.89			-0.08	-4.53
Variance 2			0.18	-0.02	-15.55			-0.00	-3.59

Notes

Sample time 1032. FB-02 sample time 0940. EB-02 sample time 0952. Sunny 45.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-15 17:36:20

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-2 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	55 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	34.34 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	17:18:23	300.06	19.20	5.87	782.33	3.70	34.44	3.39	67.61
Last 5	17:23:23	600.02	19.23	5.89	775.77	1.61	34.44	3.24	64.76
Last 5	17:28:23	900.01	19.28	5.89	777.15	0.77	34.44	3.22	63.70
Last 5	17:33:23	1200.01	19.32	5.91	776.96	0.76	34.44	3.20	63.20
Last 5									
Variance 0			0.04	0.03	-6.56			-0.15	-2.86
Variance 1			0.05	-0.00	1.38			-0.02	-1.05
Variance 2			0.04	0.01	-0.19			-0.02	-0.50

Notes

Sample time 1737. Sunny 57.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-15 16:08:52

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-2 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	75 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.05 in
Depth to Water	49.06 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	15:43:23	599.56	20.03	4.79	34.31	8.27	49.21	6.95	108.55
Last 5	15:48:23	899.56	20.06	4.85	34.81	4.80	49.21	6.95	109.04
Last 5	15:53:23	1199.56	19.82	4.87	35.46	1.81	49.21	6.99	108.92
Last 5	15:58:23	1499.56	19.88	4.87	36.49	1.09	49.21	7.09	111.36
Last 5	16:03:23	1799.57	19.85	4.89	36.27	0.75	49.21	7.08	112.62
Variance 0			-0.24	0.02	0.65			0.04	-0.13
Variance 1			0.06	-0.01	1.03			0.10	2.44
Variance 2			-0.03	0.02	-0.22			-0.01	1.26

Notes

Sample time 1608. Dup-03 fake time 1508. Sunny 54.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-13 17:32:26

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist BKG Wells BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	95 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.04 in
Depth to Water	55.30 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	17:15:11	300.02	19.23	4.76	34.36	4.23	55.46	8.60	110.80
Last 5	17:20:11	600.01	19.63	4.83	32.58	4.50	55.46	8.41	100.11
Last 5	17:25:11	900.01	19.70	4.84	32.35	1.78	55.46	8.39	97.63
Last 5	17:30:11	1200.01	19.70	4.87	32.09	1.59	55.46	8.37	94.22
Last 5									
Variance 0			0.41	0.07	-1.78			-0.19	-10.69
Variance 1			0.07	0.01	-0.23			-0.02	-2.48
Variance 2			-0.01	0.03	-0.25			-0.02	-3.42

Notes

Sample time 1733. Cloudy 56.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-13 16:23:50

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist BKG Wells BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	125 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11 in
Depth to Water	89.91 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	15:57:09	2400.02	19.72	5.72	34.02	4.31	90.85	3.35	31.64
Last 5	16:02:09	2700.08	19.55	5.73	33.80	3.66	90.85	3.55	32.35
Last 5	16:07:09	3000.06	19.77	5.76	34.83	3.44	90.85	3.65	31.13
Last 5	16:12:09	3300.03	19.81	5.79	36.04	2.92	90.85	3.69	29.57
Last 5	16:17:09	3600.03	19.86	5.81	36.27	2.97	90.85	3.84	30.18
Variance 0			0.21	0.03	1.03			0.10	-1.22
Variance 1			0.04	0.03	1.21			0.04	-1.56
Variance 2			0.05	0.02	0.23			0.14	0.61

Notes

Sample time 1622. Cloudy 54.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-16 09:11:30

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-2 BKG-7	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	65 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.01 in
Depth to Water	33.79 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	08:51:54	300.03	19.63	6.13	744.16	0.80	33.90	3.16	65.14
Last 5	08:56:54	600.01	20.13	6.14	745.45	0.73	33.90	3.16	64.52
Last 5	09:01:54	900.02	20.17	6.13	741.46	0.71	33.90	3.19	62.33
Last 5	09:06:54	1200.02	20.30	6.12	735.58	0.69	33.90	3.14	57.65
Last 5									
Variance 0			0.50	0.02	1.30			0.01	-0.62
Variance 1			0.04	-0.01	-3.99			0.02	-2.19
Variance 2			0.13	-0.01	-5.88			-0.05	-4.67

Notes

Sample time 0913. Sunny 42.

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-15 11:44:29

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG Wells	Tubing Diameter	.17 in
Site Name	Crist Plant CCR	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	90.22 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	11:23:32	600.02	22.38	4.73	44.02	0.42	90.22	6.16	121.35
Last 5	11:28:32	900.02	22.08	4.63	44.35	0.39	90.22	7.34	115.39
Last 5	11:33:32	1200.02	21.95	4.59	44.53	0.33	90.22	7.75	111.17
Last 5	11:38:32	1500.02	22.01	4.59	44.45	0.37	90.22	7.88	107.88
Last 5	11:43:32	1800.02	22.05	4.60	44.61	0.42	90.22	7.93	105.23
Variance 0			-0.13	-0.03	0.18			0.41	-4.22
Variance 1			0.07	-0.01	-0.08			0.12	-3.29
Variance 2			0.04	0.01	0.16			0.05	-2.66

Notes

Sample@1144, Sunny 82

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 07:19:59

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	95.82 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	07:03:35	300.06	22.44	5.17	29.90	0.92	95.82	9.16	136.45
Last 5	07:08:35	600.02	22.38	4.60	30.05	0.64	95.82	9.13	148.05
Last 5	07:13:35	900.02	22.30	4.51	30.31	0.52	95.82	9.06	152.15
Last 5	07:18:35	1200.02	22.35	4.50	30.44	0.48	95.82	9.07	154.32
Last 5									
Variance 0			-0.06	-0.57	0.14			-0.03	11.60
Variance 1			-0.08	-0.09	0.27			-0.07	4.10
Variance 2			0.05	-0.01	0.13			0.01	2.17

Notes

Sample@0719, DUP -04@0619, Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 17:12:24

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	102.3 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%	+/- 10		+/- 0.2	+/- 10
Last 5	16:51:38	2400.02	23.37	4.50	37.98	8.74	102.30	8.64	176.10
Last 5	16:56:38	2700.02	23.15	4.51	38.11	6.42	102.30	8.60	173.92
Last 5	17:01:38	3000.02	23.42	4.50	38.20	4.77	102.30	8.65	172.78
Last 5	17:06:38	3300.02	23.24	4.51	38.15	3.71	102.30	8.68	170.98
Last 5	17:11:38	3600.02	23.03	4.50	38.13	3.34	102.30	8.66	169.35
Variance 0			0.27	-0.01	0.09			0.05	-1.13
Variance 1			-0.18	0.00	-0.04			0.03	-1.81
Variance 2			-0.21	-0.00	-0.02			-0.02	-1.63

Notes

Sample@1712, cloudy 82

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 15:39:42

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	111.71 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:17:44	900.02	23.35	4.78	185.88	12.10	111.71	7.70	193.38
Last 5	15:22:44	1200.03	23.39	4.77	186.02	7.46	111.71	7.68	187.83
Last 5	15:27:44	1500.02	23.25	4.76	186.94	4.42	111.71	7.69	182.64
Last 5	15:32:44	1800.02	23.22	4.76	186.75	3.47	111.71	7.69	177.58
Last 5	15:37:44	2100.02	23.24	4.75	187.92	1.97	111.71	7.69	173.87
Variance 0			-0.15	-0.01	0.93			0.02	-5.19
Variance 1			-0.03	0.01	-0.19			-0.00	-5.07
Variance 2			0.01	-0.01	1.16			-0.00	-3.70

Notes

Sample@1538, EB-03@1545 Partly cloudy 85

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 11:18:31

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	85 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.599391 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	59.22 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%	+/- 10		+/- 0.2	+/- 10
Last 5	10:57:29	2700.02	23.70	3.66	2757.34	0.69	59.23	4.85	432.26
Last 5	11:02:29	3000.02	23.74	3.66	2756.18	0.61	59.33	4.83	457.93
Last 5	11:07:29	3300.02	23.72	3.65	2761.13	0.73	59.23	4.84	473.65
Last 5	11:12:29	3600.02	23.80	3.65	2758.57	0.68	59.23	4.85	477.60
Last 5	11:17:29	3900.02	23.78	3.65	2761.44	0.54	59.23	4.85	477.20
Variance 0			-0.02	-0.00	4.95			0.01	15.72
Variance 1			0.08	0.00	-2.57			0.01	3.95
Variance 2			-0.02	0.00	2.87			-0.00	-0.41

Notes

Sample@1118, partly Cloudy 85

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 09:43:17

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	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	0.02 in
Depth to Water	22 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	09:21:54	1200.02	22.44	5.91	633.58	2.05	22.02	0.13	20.43
Last 5	09:26:54	1500.03	22.62	5.88	668.88	2.22	22.02	0.12	16.22
Last 5	09:31:54	1800.02	22.69	5.89	693.10	2.29	22.02	0.11	12.06
Last 5	09:36:54	2100.03	22.64	5.88	704.37	2.39	22.02	0.11	8.93
Last 5	09:41:54	2400.02	22.60	5.88	717.94	2.21	22.02	0.12	7.03
Variance 0			0.08	0.01	24.22			-0.01	-4.15
Variance 1			-0.06	-0.01	11.27			0.00	-3.14
Variance 2			-0.04	-0.01	13.57			0.01	-1.89

Notes

Sample@0942, Cloudy 83

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 08:34:29

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	94 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	67.04 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:23:28	300.02	22.57	4.67	28.20	0.63	67.05	7.97	135.84
Last 5	08:28:28	600.02	22.53	4.69	28.20	0.53	67.05	8.00	140.66
Last 5	08:33:28	900.02	22.53	4.68	28.12	0.49	67.05	7.96	144.13
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.04	0.03	-0.00			0.02	4.82
Variance 2			-0.01	-0.01	-0.08			-0.04	3.46

Notes

Sample@0834, Cloudy 79

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-15 10:37:59

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG Wells	Tubing Diameter	.17 in
Site Name	Crist Plant CCR	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	101.26 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	10:16:27	1200.03	24.06	4.67	31.79	0.82	101.30	9.13	116.73
Last 5	10:21:27	1500.02	24.10	4.65	32.35	0.71	101.30	9.09	117.63
Last 5	10:26:27	1800.02	23.87	4.62	32.73	0.65	101.30	9.10	118.25
Last 5	10:31:27	2100.02	24.01	4.62	32.78	0.77	101.30	9.09	118.79
Last 5	10:36:27	2400.02	24.05	4.63	32.51	0.67	101.30	9.13	119.56
Variance 0			-0.23	-0.03	0.38			0.01	0.62
Variance 1			0.13	-0.01	0.05			-0.01	0.54
Variance 2			0.04	0.01	-0.27			0.04	0.76

Notes

Sample@1037, Sunny 80

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-15 09:23:29

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG Wells	Tubing Diameter	.17 in
Site Name	Crist Plant CCR	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	69.21 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	09:01:41	300.08	21.54	4.69	46.97	0.61	69.22	7.71	90.13
Last 5	09:06:41	600.02	21.51	4.56	45.12	0.35	69.22	8.17	94.09
Last 5	09:11:41	900.02	21.54	4.53	45.10	0.50	69.22	8.38	96.37
Last 5	09:16:41	1200.02	21.42	4.52	45.03	0.34	69.22	8.47	98.79
Last 5	09:21:41	1500.02	21.46	4.52	44.32	0.49	69.22	8.48	99.68
Variance 0			0.04	-0.03	-0.02			0.20	2.27
Variance 1			-0.12	-0.01	-0.07			0.10	2.42
Variance 2			0.04	0.01	-0.71			0.01	0.90

Notes

Sample@0922, cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 12:13:00

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	135 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	111.02 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	11:56:39	300.02	25.38	4.44	63.06	9.88	111.03	8.65	245.89
Last 5	12:01:39	600.02	24.93	4.44	63.07	7.56	111.03	8.75	242.74
Last 5	12:06:39	900.03	25.06	4.44	62.84	6.25	111.03	8.65	243.48
Last 5	12:11:39	1200.02	24.98	4.43	63.67	3.15	111.03	8.66	241.54
Last 5									
Variance 0			-0.45	0.00	0.01			0.09	-3.15
Variance 1			0.13	0.00	-0.23			-0.10	0.73
Variance 2			-0.07	-0.01	0.83			0.01	-1.94

Notes

Sample@1212, partly cloudy 87

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-18 14:34:40

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist LF-1 BKG-8	Tubing Diameter	.17 in
Site Name	Crist LF-1	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	81.43 ft	Total Volume Pumped	42 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	14:13:18	5100.02	24.10	4.58	1263.80	0.57	81.45	3.95	264.97
Last 5	14:18:18	5400.02	24.23	4.58	1274.56	0.51	81.45	3.95	270.03
Last 5	14:23:18	5700.02	24.37	4.59	1300.05	0.45	81.45	3.87	276.48
Last 5	14:28:18	6000.02	23.96	4.60	1297.10	0.44	81.45	3.82	280.12
Last 5	14:33:18	6300.02	24.55	4.59	1307.59	--	--	3.82	283.73
Variance 0			0.14	0.00	25.48			-0.08	6.45
Variance 1			-0.41	0.01	-2.95			-0.05	3.65
Variance 2			0.59	-0.00	10.50			0.00	3.60

Notes

Sample@1434, FB-03@1415, partly cloudy 88

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-16 13:36:39

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	17.06 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	13:15:06	600.02	23.47	4.66	4756.76	23.90	17.10	0.45	71.34
Last 5	13:20:06	900.02	23.28	4.68	4832.07	14.10	17.10	0.40	77.95
Last 5	13:25:06	1200.02	23.38	4.74	4693.02	8.97	17.10	0.38	83.05
Last 5	13:30:06	1500.02	23.37	4.75	4709.88	6.01	17.10	0.36	86.91
Last 5	13:35:06	1800.02	23.47	4.77	4744.53	4.07	17.10	0.34	89.96
Variance 0			0.09	0.05	-139.05			-0.02	5.10
Variance 1			-0.01	0.02	16.86			-0.02	3.86
Variance 2			0.10	0.01	34.65			-0.02	3.05

Notes

Sample@1335, DUP-02@1235, Sunny 88

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-17 11:17:55

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	48.38 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%	+/- 10		+/- 0.2	+/- 10
Last 5	10:55:11	1500.02	24.18	4.92	1904.24	10.90	48.38	0.22	80.84
Last 5	11:00:11	1800.02	24.19	4.90	1892.67	9.03	48.38	0.26	78.87
Last 5	11:05:11	2100.02	24.39	4.89	1875.10	7.92	48.38	0.30	77.22
Last 5	11:10:11	2400.02	24.23	4.90	1868.83	6.55	48.38	0.33	75.64
Last 5	11:15:11	2700.02	24.37	4.90	1869.51	4.67	48.38	0.34	74.62
Variance 0			0.21	-0.01	-17.57			0.04	-1.65
Variance 1			-0.16	0.01	-6.27			0.03	-1.59
Variance 2			0.13	0.00	0.69			0.01	-1.01

Notes

Sample@1116, FB-02@1035 Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-17 12:29:45

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	51.5 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:08:04	900.02	23.54	4.42	98.94	8.80	51.50	2.08	81.28
Last 5	12:13:04	1200.02	23.54	4.40	99.78	5.39	51.50	2.05	81.60
Last 5	12:18:04	1500.02	23.33	4.40	99.80	2.93	51.50	2.15	81.59
Last 5	12:23:04	1800.02	23.48	4.40	99.66	3.09	51.50	2.25	82.28
Last 5	12:28:04	2100.02	23.34	4.40	99.78	1.73	51.50	2.32	82.27
Variance 0			-0.21	0.00	0.02			0.10	-0.01
Variance 1			0.15	-0.01	-0.15			0.10	0.70
Variance 2			-0.14	0.01	0.12			0.06	-0.02

Notes

Sample@1228, EB-02@1240, Partly Cloudy 85

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-17 09:50:35

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	45.21 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	09:29:17	1200.02	23.48	4.39	268.75	2.38	45.25	0.48	77.58
Last 5	09:34:17	1500.03	22.86	4.37	273.15	1.94	45.25	0.45	75.63
Last 5	09:39:17	1800.03	23.06	4.37	280.50	1.35	45.25	0.48	74.96
Last 5	09:44:17	2100.03	23.06	4.37	286.55	1.67	45.25	0.51	74.77
Last 5	09:49:17	2400.02	23.06	4.37	287.10	1.43	45.25	0.50	75.34
Variance 0			0.20	-0.00	7.35			0.04	-0.66
Variance 1			-0.00	-0.00	6.04			0.02	-0.19
Variance 2			0.00	-0.00	0.55			-0.01	0.58

Notes

Sample@0949, DUP-03@0849 Sunny 82

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-17 08:35:54

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	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	16 in
Depth to Water	13.58 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	08:18:54	300.02	21.55	4.10	1318.10	0.89	14.82	0.16	95.08
Last 5	08:23:54	600.02	21.19	4.09	1330.23	0.84	14.99	0.12	90.07
Last 5	08:28:54	900.02	21.18	4.09	1330.62	1.16	15.02	0.11	87.39
Last 5	08:33:54	1200.02	21.12	4.08	1338.44	1.09	15.02	0.10	85.27
Last 5									
Variance 0			-0.37	-0.02	12.13			-0.04	-5.01
Variance 1			-0.00	-0.00	0.39			-0.01	-2.69
Variance 2			-0.07	-0.00	7.82			-0.01	-2.11

Notes

Sample@0835, Sunny 82

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-17 07:48:19

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	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	0.01 in
Depth to Water	16.27 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:27:23	900.02	20.91	5.60	145.48	0.48	16.29	4.75	45.77
Last 5	07:32:23	1200.02	20.96	5.58	140.50	0.42	16.29	4.55	46.00
Last 5	07:37:23	1500.02	21.07	5.55	142.45	0.69	16.29	4.46	46.65
Last 5	07:42:23	1800.02	21.19	5.54	141.96	0.61	16.29	4.41	47.04
Last 5	07:47:23	2100.02	21.23	5.51	139.70	0.52	16.29	4.48	47.50
Variance 0			0.12	-0.03	1.96			-0.10	0.66
Variance 1			0.12	-0.01	-0.50			-0.04	0.39
Variance 2			0.04	-0.02	-2.26			0.06	0.46

Notes

Sample@0747, Sunny 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-17 06:41:40

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Gypsum BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR Gypsum BKG -8	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	26.06 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	06:20:43	300.05	21.58	5.25	3248.99	5.11	26.10	0.19	15.31
Last 5	06:25:43	600.03	21.63	4.38	12101.69	3.64	26.10	0.16	57.37
Last 5	06:30:43	900.02	21.67	4.36	12628.68	3.90	26.10	0.14	56.17
Last 5	06:35:43	1200.02	21.73	4.36	12833.46	3.41	26.10	0.13	53.62
Last 5	06:40:43	1500.02	21.81	4.35	12990.90	2.65	26.10	0.13	51.54
Variance 0			0.04	-0.02	527.00			-0.02	-1.20
Variance 1			0.06	-0.00	204.77			-0.01	-2.55
Variance 2			0.07	-0.01	157.44			-0.01	-2.08

Notes

Sample@0641, Sunny 71

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-16 12:09:24

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist LF-2 BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR LF-2	Tubing Length	80 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5770739 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	57.59 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:47:36	900.02	22.63	4.51	51.76	2.47	57.59	5.64	114.03
Last 5	11:52:36	1200.02	22.52	4.54	50.52	2.26	57.59	5.36	118.66
Last 5	11:57:36	1500.03	22.70	4.53	49.59	2.10	57.59	5.26	118.61
Last 5	12:02:36	1800.02	22.66	4.54	49.13	1.69	57.59	5.15	119.21
Last 5	12:07:36	2100.02	22.71	4.53	48.52	1.48	57.59	5.06	116.54
Variance 0			0.19	-0.02	-0.93			-0.10	-0.05
Variance 1			-0.05	0.01	-0.46			-0.12	0.60
Variance 2			0.05	-0.01	-0.62			-0.08	-2.67

Notes

Sample@1208,EB-01@1215 Sunny 85

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-15 14:44:51

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist LF-2 BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	36.30 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	14:23:04	1200.02	24.38	6.37	1065.98	24.20	36.32	6.11	90.89
Last 5	14:28:04	1500.03	24.28	6.29	1059.78	15.80	36.32	5.98	88.48
Last 5	14:33:04	1800.03	24.14	6.22	1044.46	7.61	36.32	5.89	86.93
Last 5	14:38:04	2100.02	24.07	6.19	1044.99	5.87	36.32	5.84	84.80
Last 5	14:43:04	2400.02	24.19	6.15	1047.19	4.76	36.32	5.84	83.38
Variance 0			-0.14	-0.07	-15.32			-0.09	-1.55
Variance 1			-0.08	-0.03	0.53			-0.04	-2.13
Variance 2			0.12	-0.04	2.20			-0.00	-1.42

Notes

Sample@1443, DUP-01@1343 , Sunny 87

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-16 10:19:01

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist LF-2 BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR LF-2	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	34.92 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	09:57:28	600.02	21.76	5.36	1512.67	33.60	34.95	0.24	72.40
Last 5	10:02:28	900.02	21.99	5.35	1511.13	25.50	34.95	0.24	69.09
Last 5	10:07:28	1200.02	21.90	5.36	1505.01	13.90	34.95	0.23	65.93
Last 5	10:12:28	1500.02	22.05	5.37	1500.52	6.08	34.95	0.23	63.75
Last 5	10:17:28	1800.02	22.03	5.36	1497.65	4.08	34.95	0.25	61.85
Variance 0			-0.09	0.01	-6.11			-0.00	-3.16
Variance 1			0.15	0.00	-4.49			-0.01	-2.18
Variance 2			-0.02	-0.00	-2.87			0.02	-1.90

Notes

Sample@1018, Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-16 11:03:41

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist LF-2 BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR LF-2	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	49.66 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	10:46:39	300.02	23.46	4.55	41.27	9.89	49.67	6.68	80.38
Last 5	10:51:39	600.02	23.29	4.55	41.52	12.90	49.67	6.70	81.29
Last 5	10:56:39	900.02	23.47	4.54	41.88	6.81	49.67	6.74	83.55
Last 5	11:01:39	1200.02	23.42	4.53	42.05	3.33	49.67	6.74	84.30
Last 5									
Variance 0			-0.17	-0.01	0.25			0.02	0.90
Variance 1			0.19	-0.01	0.36			0.04	2.26
Variance 2			-0.05	-0.01	0.17			0.00	0.75

Notes

Sample@1103, FB-01@1050, Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-15 13:33:24

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG Wells	Tubing Diameter	.17 in
Site Name	Crist Plant CCR	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	55.91 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	13:11:36	300.02	22.12	4.72	40.90	0.43	55.91	8.21	116.91
Last 5	13:16:36	600.02	21.90	4.70	40.88	0.52	55.91	8.22	116.95
Last 5	13:21:36	900.02	22.08	4.69	41.01	0.43	55.91	8.25	115.78
Last 5	13:26:36	1200.02	22.17	4.69	41.00	0.57	55.91	8.24	113.67
Last 5	13:31:36	1500.02	22.17	4.69	40.72	0.53	55.91	8.23	111.35
Variance 0			0.18	-0.02	0.13			0.03	-1.16
Variance 1			0.09	0.00	-0.02			-0.01	-2.12
Variance 2			-0.00	-0.01	-0.28			-0.01	-2.32

Notes

Sample@1333, Sunny 88

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-15 12:38:32

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist BKG Wells	Tubing Diameter	.17 in
Site Name	Crist Plant CCR	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.83 in
Depth to Water	90.44 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	12:22:35	300.03	23.96	5.38	38.31	1.29	91.02	0.44	104.78
Last 5	12:27:35	600.02	23.52	5.40	38.63	1.25	91.05	0.32	96.56
Last 5	12:32:35	900.02	23.65	5.41	38.81	1.35	91.05	0.24	91.93
Last 5	12:37:35	1200.02	23.46	5.42	39.13	1.49	91.05	0.20	87.98
Last 5									
Variance 0			-0.44	0.02	0.32			-0.12	-8.22
Variance 1			0.13	0.01	0.18			-0.08	-4.63
Variance 2			-0.18	0.01	0.32			-0.04	-3.95

Notes

Sample@1238, Sunny 86

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-16 09:19:34

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	QED
Company Name	Surles	Tubing Type	PE
Project Name	Crist LF-2 BKG-8	Tubing Diameter	.17 in
Site Name	Crist CCR LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	34.34 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	08:58:10	1800.02	22.45	6.13	809.77	0.42	34.35	3.57	63.61
Last 5	09:03:10	2100.02	22.52	6.14	805.79	0.36	34.35	3.57	50.60
Last 5	09:08:10	2400.02	22.56	6.14	806.11	0.44	34.35	3.54	43.26
Last 5	09:13:10	2700.02	22.62	6.14	806.19	0.49	34.35	3.55	36.38
Last 5	09:18:10	3000.02	22.69	6.13	808.37	0.41	34.35	3.55	33.31
Variance 0			0.04	-0.00	0.32			-0.03	-7.34
Variance 1			0.05	-0.00	0.08			0.02	-6.88
Variance 2			0.07	-0.01	2.18			-0.00	-3.07

Notes

Sample@0918,Sunny 79

Grab Samples

LABORATORY ANALYTICAL

BACKGROUND SAMPLING EVENTS

FEBRUARY 2016 - MAY 2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-118187-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist
Revision: 1

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/11/2016 2:13:42 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 18
Chronicle 19
QC Association 22
QC Sample Results 26
Chain of Custody 39
Receipt Checklists 41
Certification Summary 42

Job ID: 400-118187-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-118187-1

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-239373: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-306 (400-118187-4) and MW-307 (400-118187-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-239191: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-306 (400-118187-4) and MW-307 (400-118187-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead.

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 296075 and analytical batch 296882 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The following samples were diluted due to the nature of the sample matrix: MW-100 (400-118187-1), MW-107 (400-118187-2), MW-108 (400-118187-3), MW-306 (400-118187-4) and MW-307 (400-118187-5). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 F C: The sample duplicate %RPD for the following sample associated with 297499 was outside control limits. The results are less than the reporting limit (RL) and are considered valid. (400-118188-4 DU).

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 297499 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-118187-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - RA	0.014		0.0025	0.00045	mg/L	5		6020	Total Recoverable
Calcium - RA	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00039	I	0.0025	0.00010	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-118187-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.013		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - RA	0.67		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00064	I	0.0025	0.00010	mg/L	5		6020	Total Recoverable
Mercury	0.000091	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Chloride	8.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-118187-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.013		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	1.4		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - RA	0.00023	I	0.0025	0.00010	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.6	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.90				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-118187-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - RA	0.012		0.0025	0.00045	mg/L	5		6020	Total Recoverable
Calcium - RA	0.60		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00064	I	0.0025	0.00010	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.08				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-118187-5

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 400-118187-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.015		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	1.5		1.3	0.63	mg/L	25		6020	Total Recoverable
Arsenic - RA	0.00038	I	0.0013	0.00033	mg/L	5		6020	Total Recoverable
Chromium - RA	0.00056	I	0.0025	0.00037	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00071	I	0.0025	0.00010	mg/L	5		6020	Total Recoverable
Lithium - RA	0.0037		0.0025	0.0016	mg/L	5		6020	Total Recoverable
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.033	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	6.37				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-118187-1
SDG: Background

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-118187-1	MW-100	Water	02/29/16 13:15	02/29/16 16:00
400-118187-2	MW-107	Water	02/29/16 12:25	02/29/16 16:00
400-118187-3	MW-108	Water	02/29/16 11:16	02/29/16 16:00
400-118187-4	MW-306	Water	03/01/16 08:21	03/01/16 14:23
400-118187-5	MW-307	Water	03/01/16 09:20	03/01/16 14:23

Client Sample ID: MW-100
Date Collected: 02/29/16 13:15
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-1
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 18:09	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:19	5
Barium	**0.014**		0.0025	0.00045	mg/L		03/04/16 10:50	03/10/16 11:19	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/10/16 11:19	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/10/16 11:19	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/10/16 11:19	5
Calcium	**1.0**		0.25	0.13	mg/L		03/04/16 10:50	03/10/16 11:19	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/10/16 11:19	5
Cobalt	**0.00039**	**I**	0.0025	0.00010	mg/L		03/04/16 10:50	03/10/16 11:19	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:19	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/10/16 11:19	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/10/16 11:19	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/10/16 11:19	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/10/16 11:19	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		03/01/16 12:23	03/02/16 14:50	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**5.3**		2.0	0.60	mg/L			03/03/16 12:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/12/16 18:46	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.316**		0.0807	0.0855	1.00	0.0654	pCi/L	03/03/16 13:33	03/26/16 18:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*03/03/16 13:33*	*03/26/16 18:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.950**		0.324	0.335	1.00	0.449	pCi/L	03/07/16 10:18	03/18/16 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*03/07/16 10:18*	*03/18/16 09:54*	*1*
Y Carrier	*96.4*		*40 - 110*	*03/07/16 10:18*	*03/18/16 09:54*	*1*

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 02/29/16 13:15
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-1
Matrix: Water

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	1.27		0.333	0.346	5.00	0.449	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.11				SU			02/29/16 13:15	1

Client Sample ID: MW-107
Date Collected: 02/29/16 12:25
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-2
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 18:46	25
Barium	**0.013**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 18:46	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:24	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/10/16 11:24	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/10/16 11:24	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/10/16 11:24	5
Calcium	**0.67**		0.25	0.13	mg/L		03/04/16 10:50	03/10/16 11:24	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/10/16 11:24	5
Cobalt	**0.00064**	**I**	0.0025	0.00010	mg/L		03/04/16 10:50	03/10/16 11:24	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:24	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/10/16 11:24	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/10/16 11:24	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/10/16 11:24	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/10/16 11:24	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000091**	**I**	0.00020	0.000070	mg/L		03/01/16 12:23	03/02/16 14:51	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			03/02/16 17:04	1
Chloride	**8.1**		2.0	0.60	mg/L			03/03/16 12:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 14:11	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.490**		0.0961	0.106	1.00	0.0599	pCi/L	03/03/16 13:43	03/26/16 18:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*03/03/16 13:43*	*03/26/16 18:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.927**		0.308	0.320	1.00	0.410	pCi/L	03/07/16 10:18	03/18/16 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*03/07/16 10:18*	*03/18/16 09:54*	*1*
Y Carrier	*87.9*		*40 - 110*	*03/07/16 10:18*	*03/18/16 09:54*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 02/29/16 12:25
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-2
Matrix: Water

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	1.42		0.323	0.337	5.00	0.410	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.11				SU			02/29/16 12:25	1

Client Sample ID: MW-108
Date Collected: 02/29/16 11:16
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-3
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 18:50	25
Barium	**0.013**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 18:50	25
Calcium	**1.4**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 18:50	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:29	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/10/16 11:29	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/10/16 11:29	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/10/16 11:29	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/10/16 11:29	5
Cobalt	**0.00023**	**I**	0.0025	0.00010	mg/L		03/04/16 10:50	03/10/16 11:29	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:29	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/10/16 11:29	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/10/16 11:29	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/10/16 11:29	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/10/16 11:29	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		03/01/16 12:23	03/02/16 14:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**7.4**		2.0	0.60	mg/L			03/03/16 12:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 14:14	1
Sulfate	**1.6**	**I**	5.0	1.4	mg/L			03/03/16 10:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.443**		0.103	0.111	1.00	0.0864	pCi/L	03/03/16 16:24	03/27/16 14:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*03/03/16 16:24*	*03/27/16 14:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.96**		0.416	0.453	1.00	0.491	pCi/L	03/07/16 10:28	03/21/16 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:09*	*1*
Y Carrier	*86.0*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:09*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 02/29/16 11:16
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-3
Matrix: Water

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	2.40		0.428	0.466	5.00	0.491	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.90				SU			02/29/16 11:16	1

Client Sample ID: MW-306

Date Collected: 03/01/16 08:21
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118187-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 18:55	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:34	5
Barium	**0.012**		0.0025	0.00045	mg/L		03/04/16 10:50	03/10/16 11:34	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/10/16 11:34	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/10/16 11:34	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/10/16 11:34	5
Calcium	**0.60**		0.25	0.13	mg/L		03/04/16 10:50	03/10/16 11:34	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/10/16 11:34	5
Cobalt	**0.00064**	**I**	0.0025	0.00010	mg/L		03/04/16 10:50	03/10/16 11:34	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:34	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/10/16 11:34	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/10/16 11:34	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/10/16 11:34	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/10/16 11:34	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		03/02/16 12:55	03/03/16 13:30	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**5.6**		2.0	0.60	mg/L			03/03/16 12:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 14:17	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.244**		0.0942	0.0967	1.00	0.117	pCi/L	03/04/16 10:28	03/28/16 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.403	U	0.317	0.319	1.00	0.503	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*84.9*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*

Client Sample ID: MW-306

Date Collected: 03/01/16 08:21
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118187-4

Matrix: Water

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	0.647		0.331	0.334	5.00	0.503	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.08				SU			03/01/16 08:21	1

Client Sample ID: MW-307
Date Collected: 03/01/16 09:20
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118187-5
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:00	25
Barium	**0.015**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:00	25
Calcium	**1.5**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:00	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00038**	**I**	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:38	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/10/16 11:38	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/10/16 11:38	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/10/16 11:38	5
Chromium	**0.00056**	**I**	0.0025	0.00037	mg/L		03/04/16 10:50	03/10/16 11:38	5
Cobalt	**0.00071**	**I**	0.0025	0.00010	mg/L		03/04/16 10:50	03/10/16 11:38	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/10/16 11:38	5
Lithium	**0.0037**		0.0025	0.0016	mg/L		03/04/16 10:50	03/10/16 11:38	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/10/16 11:38	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/10/16 11:38	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/10/16 11:38	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		03/02/16 12:55	03/03/16 13:32	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			03/02/16 17:04	1
Chloride	**4.0**		2.0	0.60	mg/L			03/03/16 12:09	1
Fluoride	**0.033**	**I**	0.10	0.032	mg/L			03/15/16 14:20	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.108**		0.0609	0.0617	1.00	0.0816	pCi/L	03/04/16 10:28	03/28/16 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.287	U	0.269	0.271	1.00	0.434	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-307
Date Collected: 03/01/16 09:20
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118187-5
Matrix: Water

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	0.395	U	0.276	0.277	5.00	0.434	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.37**				SU			03/01/16 09:20	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

Qualifier	Qualifier Description
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.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-100

Date Collected: 02/29/16 13:15
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 18:09	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	296980	03/10/16 11:19	RJB	TAL PEN
Total/NA	Prep	7470A			295498	03/01/16 12:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	295898	03/02/16 14:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:07	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297267	03/12/16 18:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239033	03/03/16 13:33	MRB	TAL SL
Total/NA	Analysis	9315		1	242289	03/26/16 18:51	ALS	TAL SL
Total/NA	Prep	PrecSep_0			239366	03/07/16 10:18	CMC	TAL SL
Total/NA	Analysis	9320		1	241106	03/18/16 09:54	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	02/29/16 13:15	BWS	TAL PEN

Client Sample ID: MW-107

Date Collected: 02/29/16 12:25
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 18:46	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	296980	03/10/16 11:24	RJB	TAL PEN
Total/NA	Prep	7470A			295498	03/01/16 12:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	295898	03/02/16 14:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:07	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239033	03/03/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242289	03/26/16 18:51	ALS	TAL SL
Total/NA	Prep	PrecSep_0			239366	03/07/16 10:18	CMC	TAL SL
Total/NA	Analysis	9320		1	241106	03/18/16 09:54	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	02/29/16 12:25	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-108

Date Collected: 02/29/16 11:16
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118187-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 18:50	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	296980	03/10/16 11:29	RJB	TAL PEN
Total/NA	Prep	7470A			295498	03/01/16 12:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	295898	03/02/16 14:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:07	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:14	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239065	03/03/16 16:24	MRB	TAL SL
Total/NA	Analysis	9315		1	242410	03/27/16 14:47	ALS	TAL SL
Total/NA	Prep	PrecSep_0			239370	03/07/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241346	03/21/16 12:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	02/29/16 11:16	BWS	TAL PEN

Client Sample ID: MW-306

Date Collected: 03/01/16 08:21
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118187-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 18:55	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	296980	03/10/16 11:34	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:07	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242443	03/28/16 07:43	MFM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 08:21	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Client Sample ID: MW-307

Date Collected: 03/01/16 09:20
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118187-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:00	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	296980	03/10/16 11:38	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:09	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242443	03/28/16 07:43	MFM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 09:20	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 295498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118145-J-2-B MS	Matrix Spike	Total/NA	Water	7470A	
400-118145-J-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
400-118187-1	MW-100	Total/NA	Water	7470A	
400-118187-2	MW-107	Total/NA	Water	7470A	
400-118187-3	MW-108	Total/NA	Water	7470A	
LCS 400-295498/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-295498/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 295705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-4	MW-306	Total/NA	Water	7470A	
400-118187-5	MW-307	Total/NA	Water	7470A	
400-118188-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-118188-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
LCS 400-295705/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-295705/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 295898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118145-J-2-B MS	Matrix Spike	Total/NA	Water	7470A	295498
400-118145-J-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	295498
400-118187-1	MW-100	Total/NA	Water	7470A	295498
400-118187-2	MW-107	Total/NA	Water	7470A	295498
400-118187-3	MW-108	Total/NA	Water	7470A	295498
LCS 400-295498/15-A	Lab Control Sample	Total/NA	Water	7470A	295498
MB 400-295498/14-A	Method Blank	Total/NA	Water	7470A	295498

Analysis Batch: 296056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-4	MW-306	Total/NA	Water	7470A	295705
400-118187-5	MW-307	Total/NA	Water	7470A	295705
400-118188-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	295705
400-118188-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	295705
LCS 400-295705/13-A	Lab Control Sample	Total/NA	Water	7470A	295705
MB 400-295705/12-A	Method Blank	Total/NA	Water	7470A	295705

Prep Batch: 296075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1 - RA	MW-100	Total Recoverable	Water	3005A	
400-118187-1 - DL	MW-100	Total Recoverable	Water	3005A	
400-118187-1 MS	MW-100	Total Recoverable	Water	3005A	
400-118187-1 MSD	MW-100	Total Recoverable	Water	3005A	
400-118187-2 - DL	MW-107	Total Recoverable	Water	3005A	
400-118187-2 - RA	MW-107	Total Recoverable	Water	3005A	
400-118187-3 - DL	MW-108	Total Recoverable	Water	3005A	
400-118187-3 - RA	MW-108	Total Recoverable	Water	3005A	
400-118187-4 - DL	MW-306	Total Recoverable	Water	3005A	
400-118187-4 - RA	MW-306	Total Recoverable	Water	3005A	
400-118187-5 - DL	MW-307	Total Recoverable	Water	3005A	
400-118187-5 - RA	MW-307	Total Recoverable	Water	3005A	
LCS 400-296075/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 296075 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-296075/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 296882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1 - DL	MW-100	Total Recoverable	Water	6020	296075
400-118187-1 MS	MW-100	Total Recoverable	Water	6020	296075
400-118187-1 MSD	MW-100	Total Recoverable	Water	6020	296075
400-118187-2 - DL	MW-107	Total Recoverable	Water	6020	296075
400-118187-3 - DL	MW-108	Total Recoverable	Water	6020	296075
400-118187-4 - DL	MW-306	Total Recoverable	Water	6020	296075
400-118187-5 - DL	MW-307	Total Recoverable	Water	6020	296075
LCS 400-296075/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	296075
MB 400-296075/1-A ^5	Method Blank	Total Recoverable	Water	6020	296075
MRL 400-296882/22	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 296980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1 - RA	MW-100	Total Recoverable	Water	6020	296075
400-118187-2 - RA	MW-107	Total Recoverable	Water	6020	296075
400-118187-3 - RA	MW-108	Total Recoverable	Water	6020	296075
400-118187-4 - RA	MW-306	Total Recoverable	Water	6020	296075
400-118187-5 - RA	MW-307	Total Recoverable	Water	6020	296075
MRL 400-296980/22	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 295907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1	MW-100	Total/NA	Water	SM 2540C	
400-118187-1 DU	MW-100	Total/NA	Water	SM 2540C	
400-118187-2	MW-107	Total/NA	Water	SM 2540C	
400-118187-3	MW-108	Total/NA	Water	SM 2540C	
400-118187-4	MW-306	Total/NA	Water	SM 2540C	
400-118187-5	MW-307	Total/NA	Water	SM 2540C	
LCS 400-295907/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-295907/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 296003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-118187-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-118187-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-118187-3 MS	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-118187-3 MSD	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-118187-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-118187-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
LCS 400-296003/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-296003/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MRL 400-296003/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 296041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-118187-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-118187-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-118187-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-118187-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-118188-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-118188-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-296041/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-296041/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MRL 400-296041/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 297267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-117913-B-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-117913-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-118187-1	MW-100	Total/NA	Water	SM 4500 F C	
400-118496-I-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-297267/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297267/2	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 297499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-117913-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-117913-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-118187-2	MW-107	Total/NA	Water	SM 4500 F C	
400-118187-3	MW-108	Total/NA	Water	SM 4500 F C	
400-118187-4	MW-306	Total/NA	Water	SM 4500 F C	
400-118187-5	MW-307	Total/NA	Water	SM 4500 F C	
400-118188-B-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-297499/6	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297499/5	Method Blank	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 239033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1	MW-100	Total/NA	Water	PrecSep-21	
400-118187-2	MW-107	Total/NA	Water	PrecSep-21	
500-108175-Y-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
500-108175-Z-2-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
LCS 160-239033/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-239033/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-3	MW-108	Total/NA	Water	PrecSep-21	
490-98290-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
490-98290-H-2-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
490-98310-E-5-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
490-98310-E-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 239065 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-239065/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-239065/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-4	MW-306	Total/NA	Water	PrecSep-21	
400-118187-5	MW-307	Total/NA	Water	PrecSep-21	
LCS 160-239191/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-239191/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-239191/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1	MW-100	Total/NA	Water	PrecSep_0	
400-118187-2	MW-107	Total/NA	Water	PrecSep_0	
500-108175-Y-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
500-108175-Z-2-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	
LCS 160-239366/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-239366/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 239370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-3	MW-108	Total/NA	Water	PrecSep_0	
490-98290-E-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
490-98290-H-2-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	
490-98310-E-5-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
490-98310-E-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
LCS 160-239370/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-239370/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 239373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-4	MW-306	Total/NA	Water	PrecSep_0	
400-118187-5	MW-307	Total/NA	Water	PrecSep_0	
LCS 160-239373/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-239373/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-239373/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 296178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-1	MW-100	Total/NA	Water	Field Sampling	
400-118187-2	MW-107	Total/NA	Water	Field Sampling	
400-118187-3	MW-108	Total/NA	Water	Field Sampling	
400-118187-4	MW-306	Total/NA	Water	Field Sampling	
400-118187-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-296882/22
Matrix: Water
Analysis Batch: 296882

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.520	I	ug/L		104	
Arsenic	0.250	0.33	U	ug/L		108	
Barium	0.500	0.469	I	ug/L		94	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		94	
Cadmium	0.250	0.277	I	ug/L		111	
Calcium	50.0	130	U	ug/L		111	
Chromium	0.500	0.517	I	ug/L		103	
Cobalt	0.500	0.478	I	ug/L		96	
Lead	0.250	0.33	U	ug/L		96	
Lithium	0.500	1.6	U	ug/L		136	
Molybdenum	0.500	0.506	I	ug/L		101	
Selenium	0.250	0.244	I	ug/L		98	
Thallium	0.100	0.101	I	ug/L		101	

Lab Sample ID: MRL 400-296980/22
Matrix: Water
Analysis Batch: 296980

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.558	I	ug/L		112	
Arsenic	0.250	0.33	U	ug/L		102	
Barium	0.500	0.45	U	ug/L		86	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		93	
Cadmium	0.250	0.279	I	ug/L		112	
Calcium	50.0	130	U	ug/L		104	
Chromium	0.500	0.476	I	ug/L		95	
Cobalt	0.500	0.464	I	ug/L		93	
Lead	0.250	0.33	U	ug/L		86	
Lithium	0.500	1.6	U	ug/L		55	
Molybdenum	0.500	0.444	I	ug/L		89	
Selenium	0.250	0.254	I	ug/L		102	
Thallium	0.100	0.0950	I	ug/L		95	

Lab Sample ID: MB 400-296075/1-A ^5
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/04/16 10:50	03/09/16 17:40	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:40	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/04/16 10:50	03/09/16 17:40	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/09/16 17:40	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/09/16 17:40	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/09/16 17:40	5
Calcium	0.13	U	0.25	0.13	mg/L		03/04/16 10:50	03/09/16 17:40	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/09/16 17:40	5

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

Lab Sample ID: MB 400-296075/1-A ^5
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/04/16 10:50	03/09/16 17:40	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:40	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/09/16 17:40	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/09/16 17:40	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/09/16 17:40	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/09/16 17:40	5

Lab Sample ID: LCS 400-296075/2-A ^1
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0517		mg/L		103	80 - 120
Arsenic	0.0500	0.0523		mg/L		105	80 - 120
Barium	0.0500	0.0466		mg/L		93	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0948		mg/L		95	80 - 120
Cadmium	0.0500	0.0512		mg/L		102	80 - 120
Calcium	5.00	5.11		mg/L		102	80 - 120
Chromium	0.0500	0.0492		mg/L		98	80 - 120
Cobalt	0.0500	0.0480		mg/L		96	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0517		mg/L		103	80 - 120
Molybdenum	0.0500	0.0474		mg/L		95	80 - 120
Selenium	0.0500	0.0513		mg/L		103	80 - 120
Thallium	0.0100	0.00961		mg/L		96	80 - 120

Lab Sample ID: 400-118187-1 MS
Matrix: Water
Analysis Batch: 296882

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0043	U	0.0500	0.0583		mg/L		117	75 - 125
Arsenic	0.0017	U	0.0500	0.0529		mg/L		106	75 - 125
Barium	0.012	I	0.0500	0.0557		mg/L		88	75 - 125
Beryllium	0.00030	U	0.0500	0.0477		mg/L		95	75 - 125
Boron	0.090	U	0.100	0.163	I J3	mg/L		163	75 - 125
Cadmium	0.00043	U	0.0500	0.0498		mg/L		100	75 - 125
Calcium	1.2	I	5.00	6.31		mg/L		103	75 - 125
Chromium	0.0019	U	0.0500	0.0492		mg/L		98	75 - 125
Cobalt	0.00050	U	0.0500	0.0490		mg/L		98	75 - 125
Lead	0.0017	U	0.0500	0.0465		mg/L		93	75 - 125
Lithium	0.0080	U	0.0500	0.0661	J3	mg/L		132	75 - 125
Molybdenum	0.0010	U	0.0500	0.0483	I	mg/L		97	75 - 125
Selenium	0.0012	U	0.0500	0.0529		mg/L		106	75 - 125
Thallium	0.00013	U	0.0100	0.00955		mg/L		96	75 - 125

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

Lab Sample ID: 400-118187-1 MSD — **Client Sample ID: MW-100**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 296882 — **Prep Batch: 296075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0043	U	0.0500	0.0539		mg/L		108	75 - 125	8	20
Arsenic	0.0017	U	0.0500	0.0518		mg/L		104	75 - 125	2	20
Barium	0.012	I	0.0500	0.0591		mg/L		95	75 - 125	6	20
Beryllium	0.00030	U	0.0500	0.0483		mg/L		97	75 - 125	1	20
Boron	0.090	U	0.100	0.149	I J3	mg/L		149	75 - 125	9	20
Cadmium	0.00043	U	0.0500	0.0540		mg/L		108	75 - 125	8	20
Calcium	1.2	I	5.00	6.11		mg/L		99	75 - 125	3	20
Chromium	0.0019	U	0.0500	0.0506		mg/L		101	75 - 125	3	20
Cobalt	0.00050	U	0.0500	0.0485		mg/L		97	75 - 125	1	20
Lead	0.0017	U	0.0500	0.0452		mg/L		90	75 - 125	3	20
Lithium	0.0080	U	0.0500	0.0729	J3	mg/L		146	75 - 125	10	20
Molybdenum	0.0010	U	0.0500	0.0452	I	mg/L		90	75 - 125	7	20
Selenium	0.0012	U	0.0500	0.0536		mg/L		107	75 - 125	1	20
Thallium	0.00013	U	0.0100	0.00975		mg/L		98	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-295498/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 295898 — **Prep Batch: 295498**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		02/29/16 08:45	03/02/16 13:51	1

Lab Sample ID: LCS 400-295498/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 295898 — **Prep Batch: 295498**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00111		mg/L		110	80 - 120

Lab Sample ID: 400-118145-J-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 295898 — **Prep Batch: 295498**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00179		mg/L		89	80 - 120

Lab Sample ID: 400-118145-J-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 295898 — **Prep Batch: 295498**

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	0.00177		mg/L		88	80 - 120	1	20

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

Lab Sample ID: MB 400-295705/12-A
Matrix: Water
Analysis Batch: 296056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295705

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/01/16 12:31	03/03/16 13:08	1

Lab Sample ID: LCS 400-295705/13-A
Matrix: Water
Analysis Batch: 296056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000955		mg/L		95	80 - 120

Lab Sample ID: 400-118188-C-1-B MS
Matrix: Water
Analysis Batch: 296056

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 295705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00188		mg/L		93	80 - 120

Lab Sample ID: 400-118188-C-1-C MSD
Matrix: Water
Analysis Batch: 296056

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 295705

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	0.00191		mg/L		95	80 - 120	2	20

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

Lab Sample ID: MB 400-295907/1
Matrix: Water
Analysis Batch: 295907

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			03/02/16 17:04	1

Lab Sample ID: LCS 400-295907/2
Matrix: Water
Analysis Batch: 295907

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-118187-1 DU
Matrix: Water
Analysis Batch: 295907

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	20		20.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-296041/6
Matrix: Water
Analysis Batch: 296041

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/03/16 11:53	1

Lab Sample ID: LCS 400-296041/7
Matrix: Water
Analysis Batch: 296041

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	29.5		mg/L		98	90 - 110

Lab Sample ID: MRL 400-296041/3
Matrix: Water
Analysis Batch: 296041

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	1.51	I	mg/L		75	50 - 150

Lab Sample ID: 400-118188-B-3 MS
Matrix: Water
Analysis Batch: 296041

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	4.8		10.0	15.6		mg/L		108	73 - 120

Lab Sample ID: 400-118188-B-3 MSD
Matrix: Water
Analysis Batch: 296041

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	4.8		10.0	15.7		mg/L		109	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-297267/2
Matrix: Water
Analysis Batch: 297267

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			03/12/16 17:27	1

Lab Sample ID: LCS 400-297267/3
Matrix: Water
Analysis Batch: 297267

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	4.28		mg/L		107	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-117913-B-10 MS
Matrix: Water
Analysis Batch: 297267

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	0.060	I	1.00	0.906		mg/L		85	75 - 125

Lab Sample ID: 400-117913-B-10 MSD
Matrix: Water
Analysis Batch: 297267

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	0.060	I	1.00	0.888		mg/L		83	75 - 125	2	4

Lab Sample ID: 400-118496-I-1 DU
Matrix: Water
Analysis Batch: 297267

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.035	I	0.0350	I	mg/L		0	4

Lab Sample ID: MB 400-297499/5
Matrix: Water
Analysis Batch: 297499

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			03/15/16 13:46	1

Lab Sample ID: LCS 400-297499/6
Matrix: Water
Analysis Batch: 297499

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	3.95		mg/L		99	90 - 110

Lab Sample ID: 400-117913-A-6 MS
Matrix: Water
Analysis Batch: 297499

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	0.085	I	1.00	0.788	J3	mg/L		70	75 - 125

Lab Sample ID: 400-117913-A-6 MSD
Matrix: Water
Analysis Batch: 297499

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	0.085	I	1.00	0.804	J3	mg/L		72	75 - 125	2	4

Lab Sample ID: 400-118188-B-4 DU
Matrix: Water
Analysis Batch: 297499

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.037	I	0.0330	I J3	mg/L		11	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-296003/6
Matrix: Water
Analysis Batch: 296003

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			03/03/16 10:05	1

Lab Sample ID: LCS 400-296003/7
Matrix: Water
Analysis Batch: 296003

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	14.8		mg/L		99	90 - 110		

Lab Sample ID: MRL 400-296003/3
Matrix: Water
Analysis Batch: 296003

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	4.92	I	mg/L		98	50 - 150		

Lab Sample ID: 400-118187-3 MS
Matrix: Water
Analysis Batch: 296003

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.6	I	10.0	12.9		mg/L		113	77 - 128		

Lab Sample ID: 400-118187-3 MSD
Matrix: Water
Analysis Batch: 296003

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.6	I	10.0	12.8		mg/L		112	77 - 128	1	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-239033/1-A
Matrix: Water
Analysis Batch: 242288

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239033

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02140	U	0.0431	0.0432	1.00	0.0897	pCi/L	03/03/16 13:33	03/26/16 18:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*03/03/16 13:33*	*03/26/16 18:43*	*1*

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

Lab Sample ID: LCS 160-239033/2-A
Matrix: Water
Analysis Batch: 242288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239033

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	11.60		1.13	1.00	0.0592	pCi/L	104	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*

Lab Sample ID: 500-108175-Y-2-B MSD
Matrix: Water
Analysis Batch: 242289

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239033

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	2.63		11.2	15.90		1.53	1.00	0.0819	pCi/L	119	75 - 138	0.05	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*

Lab Sample ID: 500-108175-Z-2-A MS
Matrix: Water
Analysis Batch: 242289

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239033

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	2.63		11.2	15.73		1.52	1.00	0.0941	pCi/L	117	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*81.8*		*40 - 110*

Lab Sample ID: MB 160-239065/1-A
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239065

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05090	U	0.0489	0.0491	1.00	0.0766	pCi/L	03/03/16 16:24	03/27/16 14:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*03/03/16 16:24*	*03/27/16 14:47*	*1*

Lab Sample ID: LCS 160-239065/2-A
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239065

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.73		1.24	1.00	0.0828	pCi/L	114	68 - 137		

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

Lab Sample ID: LCS 160-239065/2-A
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239065

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

Lab Sample ID: 490-98290-E-2-B MSD
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239065

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	0.0139	U	11.2	11.64		1.14	1.00	0.101	pCi/L	104	75 - 138	0.57	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	105		40 - 110

Lab Sample ID: 490-98290-H-2-A MS
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239065

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.0139	U	11.2	13.02		1.27	1.00	0.0972	pCi/L	117	75 - 138

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	96.9		40 - 110

Lab Sample ID: 490-98310-E-5-B MS
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239065

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.224		11.2	13.34		1.30	1.00	0.0704	pCi/L	118	75 - 138

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	99.4		40 - 110

Lab Sample ID: 490-98310-E-5-C MSD
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239065

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	0.224		11.2	13.31		1.30	1.00	0.109	pCi/L	117	75 - 138	0.01	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	93.7		40 - 110

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

Lab Sample ID: MB 160-239191/1-A
Matrix: Water
Analysis Batch: 242443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239191

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04993	U	0.0415	0.0417	1.00	0.0614	pCi/L	03/04/16 10:28	03/28/16 07:41	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:41*	*1*

Lab Sample ID: LCS 160-239191/2-A
Matrix: Water
Analysis Batch: 242443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239191

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.89		1.26	1.00	0.0666	pCi/L	115	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*

Lab Sample ID: LCSD 160-239191/3-A
Matrix: Water
Analysis Batch: 242443

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239191

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	13.37		1.31	1.00	0.0712	pCi/L	120	68 - 137	0.19	1

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

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-239366/1-A
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239366

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1202	U	0.214	0.214	1.00	0.401	pCi/L	03/07/16 10:18	03/18/16 09:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*03/07/16 10:18*	*03/18/16 09:44*	*1*
Y Carrier	*83.4*		*40 - 110*	*03/07/16 10:18*	*03/18/16 09:44*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-239366/2-A
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239366

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.27	10.02		1.20	1.00	0.489	pCi/L	108	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*
Y Carrier	*67.3*		*40 - 110*

Lab Sample ID: 500-108175-Y-2-C MSD
Matrix: Water
Analysis Batch: 241106

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239366

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	3.53		9.27	14.75		1.67	1.00	0.607	pCi/L	121	45 - 150	0.19	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Lab Sample ID: 500-108175-Z-2-B MS
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239366

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	3.53		9.27	15.40		1.70	1.00	0.323	pCi/L	128	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*81.8*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

Lab Sample ID: MB 160-239370/1-A
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239370

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2286	U	0.291	0.292	1.00	0.483	pCi/L	03/07/16 10:28	03/21/16 12:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:08*	*1*
Y Carrier	*86.0*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:08*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-239370/2-A
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239370

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.26	10.25		1.17	1.00	0.409	pCi/L	111	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Lab Sample ID: 490-98290-E-2-D MSD
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239370

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	0.246	U	9.26	9.451		1.09	1.00	0.371	pCi/L	102	45 - 150	0.29	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*105*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Lab Sample ID: 490-98290-H-2-B MS
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239370

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.246	U	9.26	8.831		1.04	1.00	0.372	pCi/L	95	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*96.9*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Lab Sample ID: 490-98310-E-5-E MS
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239370

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.443		9.26	9.612		1.11	1.00	0.382	pCi/L	99	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 490-98310-E-5-F MSD
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239370

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	0.443		9.26	10.14		1.18	1.00	0.457	pCi/L	105	45 - 150	0.23	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.7*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

Lab Sample ID: MB 160-239373/1-A
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239373

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3144	U	0.242	0.244	1.00	0.381	pCi/L	03/07/16 11:03	03/21/16 16:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:48*	*1*
Y Carrier	*79.6*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:48*	*1*

Lab Sample ID: LCS 160-239373/2-A
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239373

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.26	10.38		1.22	1.00	0.445	pCi/L	112	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*
Y Carrier	*80.0*		*40 - 110*

Lab Sample ID: LCSD 160-239373/3-A
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239373

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.26	9.759		1.12	1.00	0.348	pCi/L	105	56 - 140	0.26	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*85.2*		*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 Sukes	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53116-23627.1
Client Contact: Carl Eldred	Phone: 850 380 3455	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32301				
Phone:	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	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 - [illegible]; N - [illegible]; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
Other: 400-118187 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, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
MW-100	~~2~~/29/16	1315	G	Water			X	X	X			PH-5.11
MW-107	2/29/16	1225	G	Water			X	X	X			PH-5.11
MW-108	2/29/16	1116	G	Water			X	X	X			PH=4.90
[redacted]				Water								
[redacted]				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: 2-29-16 1600	Company: RPH	Received by:	Date/Time: 2/29/16 1600	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 1600 SAKERS 2-29-16	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 2-29-16 ~~15:45~~	Company: TA

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.2°c IR2

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

Chain of Custody Record

400-118187

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Sykes	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53116-23627.1
Client Contact: Carl Eldred	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:

Address: 119 S Monroe St ste 300	Due Date Requested:	Analysis Requested	Preservation Codes: 400-118187 COC
City: Tallahassee	TAT Requested (days):		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 - Na2S2SO3 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)
State, Zip: FL, 32301			
Phone:	PO #: Purchase Order not required		
Email: carle@hgslaw.com	WO #:		Other:
Project Name: CCR Plant Crist	Project #: 40005424		
Site: Background	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	SM4500_Cl_E, SM4500_SO4_E, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
~~MW-100~~	—	—	—	Water								
~~MW-107~~	—	—	—	Water								
~~MW-108~~	—	—	—	Water								
MW-306	3/1/16	0821	G	Water			X	X	X			5.08
MW-307	3/1/16	0920	G	Water			X	X	X			6.37

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
1		3/1/16 1423	RDH		3-1-16 1423	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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 IR-6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-118187-1
SDG Number: Background

Login Number: 118187
List Number: 1
Creator: Akers, Stephanie C

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	0.2°C, IR-2, 3.5°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	05-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-16
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	05-31-16
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16
Nevada	State Program	9	MO000542016-1	07-31-16
New Jersey	NELAP	2	MO002	06-30-16
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-16

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-118187-1
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16
Texas	NELAP	6	T104704193-15-9	07-31-16
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-118188-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist
Revision: 1

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/11/2016 2:18:58 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

Links

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 32
Chronicle 33
QC Association 39
QC Sample Results 45
Chain of Custody 59
Receipt Checklists 62
Certification Summary 63

Job ID: 400-118188-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-118188-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-239373: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-102 (400-118188-3), MW-103 (400-118188-4), MW-104 (400-118188-5), MW-106 (400-118188-7), DUP-02 (400-118188-8), FB-01 (400-118188-9) and EB-01 (400-118188-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-239373: The following samples were prepared at a reduced aliquot due to sediment and discoloration: MW-105 (400-118188-6).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-239191: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-102 (400-118188-3), MW-103 (400-118188-4), MW-104 (400-118188-5), MW-106 (400-118188-7), DUP-02 (400-118188-8), FB-01 (400-118188-9) and EB-01 (400-118188-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep-21: Radium-228 Prep Batch 160-239191: The following samples were prepared at a reduced aliquot due to sediment and discoloration: MW-105 (400-118188-6).

Metals

Method(s) 7470A: The matrix spike duplicate (MSD) recovery for prep batch 295975 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 296075 and analytical batch 296882 were outside control limits for Boron and Lithium. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The following samples were diluted due to the nature of the sample matrix: MW-101 (400-118188-1), DUP-01 (400-118188-2), MW-102 (400-118188-3), MW-103 (400-118188-4), MW-104 (400-118188-5), MW-105 (400-118188-6), MW-106 (400-118188-7), DUP-02 (400-118188-8), MW-109 (400-118188-11) and MW-110 (400-118188-12). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 F C: The sample duplicate %RPD for the following sample associated with 297499 was outside control limits. The results are less than the reporting limit (RL) and are considered valid. (400-118188-4 DU).

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 297499 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-118188-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.0097	I	0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	1.0	I	1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.26				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-118188-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.010	I	0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	1.1	I	1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.26				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-118188-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.0081	I	0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	0.99	I	1.3	0.63	mg/L	25		6020	Total Recoverable
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.03				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-118188-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.055		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	5.6		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0010	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0028	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Boron - RADL	0.25		0.25	0.090	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	84		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.037	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	26		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.86				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-118188-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0085		0.0063	0.0017	mg/L	25		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-118188-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.017		0.013	0.0023	mg/L	25		6020	Total Recoverable
Beryllium - DL	0.0013	I	0.013	0.00030	mg/L	25		6020	Total Recoverable
Calcium - DL	46		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.017		0.013	0.00050	mg/L	25		6020	Total Recoverable
Lead - DL	0.0018	I	0.0063	0.0017	mg/L	25		6020	Total Recoverable
Lithium - DL	0.057		0.013	0.0080	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0054	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00043	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Boron - DL2	8.7		1.0	0.36	mg/L	100		6020	Total Recoverable
Mercury	0.00089		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	760		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	90		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.46		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	380		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.09				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-118188-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0039	I	0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.043		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	63		1.3	0.63	mg/L	25		6020	Total Recoverable
Chromium - DL	0.0023	I	0.013	0.0019	mg/L	25		6020	Total Recoverable
Molybdenum - DL	0.0040	I	0.075	0.0010	mg/L	25		6020	Total Recoverable
Boron - RADL	0.31		0.25	0.090	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	290		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	36		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.041	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	17		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.12				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-118188-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.016		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	1.8		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.00070	I	0.013	0.00050	mg/L	25		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-106 (Continued) — Lab Sample ID: 400-118188-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.84				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-118188-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.056		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	4.5		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0011	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0021	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Boron - RADL	0.23	I	0.25	0.090	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.033	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	26		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.86				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-118188-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.30		0.050	0.018	mg/L	5		6020	Total Recoverable
Chloride	0.64	I	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-118188-10

No Detections.

Client Sample ID: MW-109 — Lab Sample ID: 400-118188-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.022		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	2.0		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.00075	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Lithium - DL	0.0095	I	0.013	0.0080	mg/L	25		6020	Total Recoverable
Boron - RADL	0.35		0.25	0.090	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	13		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.19				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-118188-12

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-110 (Continued) — Lab Sample ID: 400-118188-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.058		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	23		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0047	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Lithium - DL	0.0082	I	0.013	0.0080	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0025	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00018	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Boron - RADL	3.0		0.25	0.090	mg/L	25		6020	Total Recoverable
Mercury	0.0070		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	87		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.039	I	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	4.84				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-118188-1	MW-101	Water	02/29/16 14:33	02/29/16 16:00
400-118188-2	DUP-01	Water	02/29/16 13:33	02/29/16 16:00
400-118188-3	MW-102	Water	03/01/16 13:43	03/01/16 14:23
400-118188-4	MW-103	Water	03/01/16 12:06	03/01/16 14:23
400-118188-5	MW-104	Water	03/01/16 14:55	03/01/16 14:23
400-118188-6	MW-105	Water	03/01/16 13:10	03/01/16 14:23
400-118188-7	MW-106	Water	03/01/16 09:45	03/01/16 14:23
400-118188-8	DUP-02	Water	03/01/16 11:06	03/01/16 14:23
400-118188-9	FB-01	Water	03/01/16 11:30	03/01/16 14:23
400-118188-10	EB-01	Water	03/01/16 15:15	03/01/16 14:23
400-118188-11	MW-109	Water	03/02/16 09:43	03/02/16 16:49
400-118188-12	MW-110	Water	03/02/16 11:10	03/02/16 16:49

Client Sample ID: MW-101

Date Collected: 02/29/16 14:33
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118188-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:05	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:05	25
Barium	**0.0097**	**I**	0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:05	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:05	25
Boron	0.090	U	0.25	0.090	mg/L		03/04/16 10:50	03/09/16 19:05	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:05	25
Calcium	**1.0**	**I**	1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:05	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:05	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:05	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:05	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:05	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:05	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:05	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:05	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		03/01/16 12:31	03/03/16 13:10	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**5.4**		2.0	0.60	mg/L			03/03/16 12:09	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 14:23	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.365**		0.0914	0.0971	1.00	0.0839	pCi/L	03/03/16 16:24	03/27/16 14:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/03/16 16:24*	*03/27/16 14:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.722**		0.310	0.317	1.00	0.452	pCi/L	03/07/16 10:28	03/21/16 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:09*	*1*
Y Carrier	*83.4*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:09*	*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	**1.09**		0.323	0.332	5.00	0.452	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 02/29/16 14:33
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118188-1
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.26				SU			02/29/16 14:33	1

Client Sample ID: DUP-01
Date Collected: 02/29/16 13:33
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118188-2
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:09	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:09	25
Barium	**0.010**	**I**	0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:09	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:09	25
Boron	0.090	U	0.25	0.090	mg/L		03/04/16 10:50	03/09/16 19:09	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:09	25
Calcium	**1.1**	**I**	1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:09	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:09	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:09	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:09	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:09	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:09	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:09	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:09	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		03/01/16 12:31	03/03/16 13:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**5.4**		2.0	0.60	mg/L			03/03/16 12:09	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 14:26	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:27	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.338**		0.0880	0.0931	1.00	0.0679	pCi/L	03/03/16 16:24	03/27/16 14:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*03/03/16 16:24*	*03/27/16 14:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.981**		0.320	0.332	1.00	0.423	pCi/L	03/07/16 10:28	03/21/16 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:09*	*1*
Y Carrier	*84.5*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:09*	*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	**1.32**		0.332	0.345	5.00	0.423	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: DUP-01
Date Collected: 02/29/16 13:33
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118188-2
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.26				SU			02/29/16 13:33	1

Client Sample ID: MW-102
Date Collected: 03/01/16 13:43
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-3
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:14	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:14	25
Barium	**0.0081**	**I**	0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:14	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:14	25
Boron	0.090	U	0.25	0.090	mg/L		03/04/16 10:50	03/09/16 19:14	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:14	25
Calcium	**0.99**	**I**	1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:14	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:14	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:14	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:14	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:14	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:14	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:14	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:14	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		03/02/16 12:55	03/03/16 13:33	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			03/02/16 17:04	1
Chloride	**4.8**		2.0	0.60	mg/L			03/03/16 12:09	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 14:29	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 10:27	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.316**		0.0885	0.0929	1.00	0.0899	pCi/L	03/04/16 10:28	03/28/16 07:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.679**		0.278	0.285	1.00	0.388	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*81.1*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*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	**0.996**		0.292	0.300	5.00	0.388	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-102
Date Collected: 03/01/16 13:43
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.03				SU			03/01/16 13:43	1

Client Sample ID: MW-103
Date Collected: 03/01/16 12:06
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-4
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:33	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:33	25
Barium	**0.055**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:33	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:33	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:33	25
Calcium	**5.6**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:33	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:33	25
Cobalt	**0.0010**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:33	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:33	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:33	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:33	25
Selenium	**0.0028**	**I**	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:33	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:33	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.25**		0.25	0.090	mg/L		03/04/16 10:50	03/10/16 11:43	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		03/02/16 12:55	03/03/16 13:34	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**84**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**6.6**		2.0	0.60	mg/L			03/03/16 12:37	1
Fluoride	**0.037**	**I**	0.10	0.032	mg/L			03/15/16 14:49	1
Sulfate	**26**		5.0	1.4	mg/L			03/03/16 10:27	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.87**		0.185	0.250	1.00	0.0724	pCi/L	03/04/16 10:28	03/28/16 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**3.37**		0.435	0.534	1.00	0.375	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*84.1*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-103
Date Collected: 03/01/16 12:06
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-4
Matrix: Water

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	5.24		0.473	0.590	5.00	0.375	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.86				SU			03/01/16 12:06	1

Client Sample ID: MW-104

Date Collected: 03/01/16 14:55
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:37	25
Arsenic	**0.0085**		0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:37	25
Barium	**0.017**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:37	25
Beryllium	**0.0013**	**I**	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:37	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:37	25
Calcium	**46**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:37	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:37	25
Cobalt	**0.017**		0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:37	25
Lead	**0.0018**	**I**	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:37	25
Lithium	**0.057**		0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:37	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:37	25
Selenium	**0.0054**	**I**	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:37	25
Thallium	**0.00043**	**I**	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:37	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.7**		1.0	0.36	mg/L		03/04/16 10:50	03/10/16 11:48	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00089**		0.00020	0.000070	mg/L		03/02/16 12:55	03/03/16 13:35	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**760**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**90**		10	3.0	mg/L			03/03/16 12:55	5
Fluoride	**0.46**		0.10	0.032	mg/L			03/15/16 14:55	1
Sulfate	**380**		100	28	mg/L			03/03/16 10:55	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.27**		0.208	0.292	1.00	0.0696	pCi/L	03/04/16 10:28	03/28/16 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**9.51**		0.706	1.12	1.00	0.440	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-104
Date Collected: 03/01/16 14:55
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-5
Matrix: Water

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	11.8		0.736	1.16	5.00	0.440	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.09				SU			03/01/16 14:55	1

Client Sample ID: MW-105

Date Collected: 03/01/16 13:10
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:42	25
Arsenic	**0.0039**	**I**	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:42	25
Barium	**0.043**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:42	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:42	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:42	25
Calcium	**63**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:42	25
Chromium	**0.0023**	**I**	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:42	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:42	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:42	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:42	25
Molybdenum	**0.0040**	**I**	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:42	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:42	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:42	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.31**		0.25	0.090	mg/L		03/04/16 10:50	03/10/16 11:53	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		03/02/16 12:55	03/03/16 13:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**290**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**36**		2.0	0.60	mg/L			03/03/16 12:38	1
Fluoride	**0.041**	**I**	0.10	0.032	mg/L			03/15/16 14:58	1
Sulfate	**17**		5.0	1.4	mg/L			03/03/16 11:08	1

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**		0.218	0.242	1.00	0.132	pCi/L	03/04/16 10:28	03/28/16 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.6*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**3.06**		0.697	0.752	1.00	0.816	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.6*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*87.5*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-105
Date Collected: 03/01/16 13:10
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-6
Matrix: Water

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	4.21		0.731	0.790	5.00	0.816	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.12				SU			03/01/16 13:10	1

Client Sample ID: MW-106

Date Collected: 03/01/16 09:45
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:47	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:47	25
Barium	**0.016**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:47	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:47	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:47	25
Calcium	**1.8**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:47	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:47	25
Cobalt	**0.00070**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:47	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:47	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:47	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:47	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:47	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:47	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.090	U	0.25	0.090	mg/L		03/04/16 10:50	03/10/16 11:57	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		03/02/16 12:55	03/03/16 13:38	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			03/02/16 17:04	1
Chloride	**4.4**		2.0	0.60	mg/L			03/03/16 12:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 15:00	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 11:08	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.229**		0.0826	0.0851	1.00	0.0922	pCi/L	03/04/16 10:28	03/28/16 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.1*		*40 - 110*	*03/04/16 10:28*	*03/28/16 11:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.644**		0.339	0.344	1.00	0.504	pCi/L	03/07/16 11:03	03/21/16 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.1*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:49*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-106
Date Collected: 03/01/16 09:45
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-7
Matrix: Water

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	0.872		0.348	0.354	5.00	0.504	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.84				SU			03/01/16 09:45	1

Client Sample ID: DUP-02

Date Collected: 03/01/16 11:06
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:52	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:52	25
Barium	**0.056**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:52	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:52	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:52	25
Calcium	**4.5**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:52	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:52	25
Cobalt	**0.0011**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:52	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:52	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:52	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:52	25
Selenium	**0.0021**	**I**	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:52	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:52	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.23**	**I**	0.25	0.090	mg/L		03/04/16 10:50	03/10/16 12:02	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		03/02/16 12:55	03/03/16 13:39	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**40**		5.0	3.4	mg/L			03/02/16 17:04	1
Chloride	**7.2**		2.0	0.60	mg/L			03/03/16 12:38	1
Fluoride	**0.033**	**I**	0.10	0.032	mg/L			03/15/16 15:03	1
Sulfate	**26**		5.0	1.4	mg/L			03/03/16 11:08	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.85**		0.181	0.246	1.00	0.0688	pCi/L	03/04/16 10:28	03/28/16 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*03/04/16 10:28*	*03/28/16 11:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.10**		0.507	0.632	1.00	0.481	pCi/L	03/07/16 11:03	03/21/16 16:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:55*	*1*
Y Carrier	*83.0*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:55*	*1*

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: DUP-02
Date Collected: 03/01/16 11:06
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-8
Matrix: Water

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	5.95		0.538	0.678	5.00	0.481	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.86				SU			03/01/16 11:06	1

Client Sample ID: FB-01
Date Collected: 03/01/16 11:30
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-9
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/04/16 10:50	03/09/16 17:59	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:59	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/04/16 10:50	03/09/16 17:59	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/09/16 17:59	5
Boron	**0.30**		0.050	0.018	mg/L		03/04/16 10:50	03/09/16 17:59	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/09/16 17:59	5
Calcium	0.13	U	0.25	0.13	mg/L		03/04/16 10:50	03/09/16 17:59	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/09/16 17:59	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/04/16 10:50	03/09/16 17:59	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:59	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/09/16 17:59	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/09/16 17:59	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/09/16 17:59	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/09/16 17:59	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		03/02/16 12:55	03/03/16 13:41	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			03/02/16 17:04	1
Chloride	**0.64**	**I**	2.0	0.60	mg/L			03/03/16 12:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 15:06	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 11:08	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0365	U	0.0472	0.0473	1.00	0.0786	pCi/L	03/04/16 10:28	03/28/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*03/04/16 10:28*	*03/28/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.129	U	0.266	0.266	1.00	0.453	pCi/L	03/07/16 11:03	03/21/16 16:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:56*	*1*
Y Carrier	*80.4*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:56*	*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	0.166	U	0.270	0.270	5.00	0.453	pCi/L		04/11/16 13:05	1

Client Sample ID: EB-01

Date Collected: 03/01/16 15:15
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/04/16 10:50	03/09/16 18:04	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 18:04	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/04/16 10:50	03/09/16 18:04	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/09/16 18:04	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/09/16 18:04	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/09/16 18:04	5
Calcium	0.13	U	0.25	0.13	mg/L		03/04/16 10:50	03/09/16 18:04	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/09/16 18:04	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/04/16 10:50	03/09/16 18:04	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 18:04	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/09/16 18:04	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/09/16 18:04	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/09/16 18:04	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/09/16 18:04	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		03/02/16 12:55	03/03/16 13:45	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			03/02/16 17:04	1
Chloride	0.60	U	2.0	0.60	mg/L			03/07/16 15:47	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 15:09	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/03/16 11:08	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0596	U	0.0524	0.0526	1.00	0.0800	pCi/L	03/04/16 10:28	03/28/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.9*		*40 - 110*	*03/04/16 10:28*	*03/28/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.259	U	0.314	0.315	1.00	0.520	pCi/L	03/07/16 11:03	03/21/16 16:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.9*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:56*	*1*
Y Carrier	*83.7*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:56*	*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	0.318	U	0.319	0.320	5.00	0.520	pCi/L		04/11/16 13:05	1

Client Sample ID: MW-109

Date Collected: 03/02/16 09:43
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-11

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 19:56	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:56	25
Barium	**0.022**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 19:56	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 19:56	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 19:56	25
Calcium	**2.0**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 19:56	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 19:56	25
Cobalt	**0.00075**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 19:56	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 19:56	25
Lithium	**0.0095**	**I**	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 19:56	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 19:56	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 19:56	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 19:56	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.35**		0.25	0.090	mg/L		03/04/16 10:50	03/10/16 12:21	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		03/03/16 09:23	03/07/16 12:21	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**30**		5.0	3.4	mg/L			03/04/16 18:03	1
Chloride	**5.0**		2.0	0.60	mg/L			03/07/16 16:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/16 15:13	1
Sulfate	**13**		5.0	1.4	mg/L			03/03/16 11:08	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.931**		0.130	0.155	1.00	0.0663	pCi/L	03/07/16 13:43	03/29/16 08:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*03/07/16 13:43*	*03/29/16 08:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.45**		0.322	0.349	1.00	0.392	pCi/L	03/08/16 10:28	03/23/16 08:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-109
Date Collected: 03/02/16 09:43
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-11
Matrix: Water

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	2.39		0.347	0.381	5.00	0.392	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.19				SU			03/02/16 09:43	1

Client Sample ID: MW-110
Date Collected: 03/02/16 11:10
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-12
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 20:01	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 20:01	25
Barium	**0.058**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 20:01	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 20:01	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 20:01	25
Calcium	**23**		1.3	0.63	mg/L		03/04/16 10:50	03/09/16 20:01	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 20:01	25
Cobalt	**0.0047**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 20:01	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 20:01	25
Lithium	**0.0082**	**I**	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 20:01	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 20:01	25
Selenium	**0.0025**	**I**	0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 20:01	25
Thallium	**0.00018**	**I**	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 20:01	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.0**		0.25	0.090	mg/L		03/04/16 10:50	03/10/16 12:25	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0070**		0.00020	0.000070	mg/L		03/03/16 09:23	03/07/16 12:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		5.0	3.4	mg/L			03/04/16 18:03	1
Chloride	**87**		10	3.0	mg/L			03/07/16 17:16	5
Fluoride	**0.039**	**I**	0.10	0.032	mg/L			03/15/16 15:51	1
Sulfate	**150**		25	7.0	mg/L			03/03/16 11:19	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.58**		0.218	0.319	1.00	0.0670	pCi/L	03/07/16 13:43	03/29/16 08:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*40 - 110*	*03/07/16 13:43*	*03/29/16 08:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**5.22**		0.500	0.694	1.00	0.335	pCi/L	03/08/16 10:28	03/23/16 08:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*
Y Carrier	*83.0*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-110
Date Collected: 03/02/16 11:10
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-12
Matrix: Water

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	7.80		0.546	0.763	5.00	0.335	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.84				SU			03/02/16 11:10	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
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.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 02/29/16 14:33
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118188-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:05	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/01/16 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:09	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239065	03/03/16 16:24	MRB	TAL SL
Total/NA	Analysis	9315		1	242410	03/27/16 14:47	ALS	TAL SL
Total/NA	Prep	PrecSep_0			239370	03/07/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241346	03/21/16 12:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	02/29/16 14:33	BWS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 02/29/16 13:33
Date Received: 02/29/16 16:00

Lab Sample ID: 400-118188-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:09	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/01/16 12:31	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:09	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:27	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239065	03/03/16 16:24	MRB	TAL SL
Total/NA	Analysis	9315		1	242410	03/27/16 14:47	ALS	TAL SL
Total/NA	Prep	PrecSep_0			239370	03/07/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241346	03/21/16 12:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	02/29/16 13:33	BWS	TAL PEN

Client Sample ID: MW-102
Date Collected: 03/01/16 13:43
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:14	RJB	TAL PEN

Client Sample ID: MW-102

Date Collected: 03/01/16 13:43
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:09	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:27	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242443	03/28/16 07:42	MFM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 13:43	BWS	TAL PEN

Client Sample ID: MW-103

Date Collected: 03/01/16 12:06
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:33	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	296980	03/10/16 11:43	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:37	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 10:27	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242443	03/28/16 07:43	MFM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 12:06	BWS	TAL PEN

Client Sample ID: MW-104

Date Collected: 03/01/16 14:55
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:37	RJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-104

Date Collected: 03/01/16 14:55
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL2		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	100	296980	03/10/16 11:48	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	296041	03/03/16 12:55	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	296003	03/03/16 10:55	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242443	03/28/16 07:43	MFM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 14:55	BWS	TAL PEN

Client Sample ID: MW-105

Date Collected: 03/01/16 13:10
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:42	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	296980	03/10/16 11:53	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:38	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 14:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 11:08	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242443	03/28/16 07:43	MFM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 13:10	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-106

Date Collected: 03/01/16 09:45
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:47	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	296980	03/10/16 11:57	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:38	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 15:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 11:08	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242500	03/28/16 11:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241347	03/21/16 16:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 09:45	BWS	TAL PEN

Client Sample ID: DUP-02

Date Collected: 03/01/16 11:06
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:52	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	296980	03/10/16 12:02	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:38	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 15:03	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 11:08	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242500	03/28/16 11:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241346	03/21/16 16:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/01/16 11:06	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: FB-01
Date Collected: 03/01/16 11:30
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	296882	03/09/16 17:59	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296041	03/03/16 12:38	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 15:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 11:08	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242500	03/28/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241346	03/21/16 16:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: EB-01
Date Collected: 03/01/16 15:15
Date Received: 03/01/16 14:23

Lab Sample ID: 400-118188-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	296882	03/09/16 18:04	RJB	TAL PEN
Total/NA	Prep	7470A			295705	03/02/16 12:55	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296056	03/03/16 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	295907	03/02/16 17:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 15:47	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 15:09	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 11:08	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239191	03/04/16 10:28	MRB	TAL SL
Total/NA	Analysis	9315		1	242500	03/28/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239373	03/07/16 11:03	CMC	TAL SL
Total/NA	Analysis	9320		1	241346	03/21/16 16:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: MW-109
Date Collected: 03/02/16 09:43
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 19:56	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	296980	03/10/16 12:21	RJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Client Sample ID: MW-109

Date Collected: 03/02/16 09:43
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296305	03/04/16 18:03	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 16:27	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297499	03/15/16 15:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296003	03/03/16 11:08	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239388	03/07/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242773	03/29/16 08:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239468	03/08/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241800	03/23/16 08:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/02/16 09:43	BWS	TAL PEN

Client Sample ID: MW-110

Date Collected: 03/02/16 11:10
Date Received: 03/02/16 16:49

Lab Sample ID: 400-118188-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 20:01	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	296980	03/10/16 12:25	RJB	TAL PEN
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296305	03/04/16 18:03	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	296555	03/07/16 17:16	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297502	03/15/16 15:51	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	296003	03/03/16 11:19	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239388	03/07/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242773	03/29/16 08:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239468	03/08/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241800	03/23/16 08:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/02/16 11:10	BWS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Metals

Prep Batch: 295705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	7470A	
400-118188-1 MS	MW-101	Total/NA	Water	7470A	
400-118188-1 MSD	MW-101	Total/NA	Water	7470A	
400-118188-2	DUP-01	Total/NA	Water	7470A	
400-118188-3	MW-102	Total/NA	Water	7470A	
400-118188-4	MW-103	Total/NA	Water	7470A	
400-118188-5	MW-104	Total/NA	Water	7470A	
400-118188-6	MW-105	Total/NA	Water	7470A	
400-118188-7	MW-106	Total/NA	Water	7470A	
400-118188-8	DUP-02	Total/NA	Water	7470A	
400-118188-9	FB-01	Total/NA	Water	7470A	
400-118188-10	EB-01	Total/NA	Water	7470A	
LCS 400-295705/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-295705/12-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 295975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-11	MW-109	Total/NA	Water	7470A	
400-118188-12	MW-110	Total/NA	Water	7470A	
400-118307-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-118307-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
LCS 400-295975/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-295975/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 296056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	7470A	295705
400-118188-1 MS	MW-101	Total/NA	Water	7470A	295705
400-118188-1 MSD	MW-101	Total/NA	Water	7470A	295705
400-118188-2	DUP-01	Total/NA	Water	7470A	295705
400-118188-3	MW-102	Total/NA	Water	7470A	295705
400-118188-4	MW-103	Total/NA	Water	7470A	295705
400-118188-5	MW-104	Total/NA	Water	7470A	295705
400-118188-6	MW-105	Total/NA	Water	7470A	295705
400-118188-7	MW-106	Total/NA	Water	7470A	295705
400-118188-8	DUP-02	Total/NA	Water	7470A	295705
400-118188-9	FB-01	Total/NA	Water	7470A	295705
400-118188-10	EB-01	Total/NA	Water	7470A	295705
LCS 400-295705/13-A	Lab Control Sample	Total/NA	Water	7470A	295705
MB 400-295705/12-A	Method Blank	Total/NA	Water	7470A	295705

Prep Batch: 296075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-C-1-C MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-118187-C-1-D MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-118188-1 - DL	MW-101	Total Recoverable	Water	3005A	
400-118188-2 - DL	DUP-01	Total Recoverable	Water	3005A	
400-118188-3 - DL	MW-102	Total Recoverable	Water	3005A	
400-118188-4 - RADL	MW-103	Total Recoverable	Water	3005A	
400-118188-4 - DL	MW-103	Total Recoverable	Water	3005A	
400-118188-5 - DL	MW-104	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 296075 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-5 - DL2	MW-104	Total Recoverable	Water	3005A	
400-118188-6 - DL	MW-105	Total Recoverable	Water	3005A	
400-118188-6 - RADL	MW-105	Total Recoverable	Water	3005A	
400-118188-7 - DL	MW-106	Total Recoverable	Water	3005A	
400-118188-7 - RADL	MW-106	Total Recoverable	Water	3005A	
400-118188-8 - DL	DUP-02	Total Recoverable	Water	3005A	
400-118188-8 - RADL	DUP-02	Total Recoverable	Water	3005A	
400-118188-9	FB-01	Total Recoverable	Water	3005A	
400-118188-10	EB-01	Total Recoverable	Water	3005A	
400-118188-11 - DL	MW-109	Total Recoverable	Water	3005A	
400-118188-11 - RADL	MW-109	Total Recoverable	Water	3005A	
400-118188-12 - DL	MW-110	Total Recoverable	Water	3005A	
400-118188-12 - RADL	MW-110	Total Recoverable	Water	3005A	
LCS 400-296075/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-296075/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 296492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-11	MW-109	Total/NA	Water	7470A	295975
400-118188-12	MW-110	Total/NA	Water	7470A	295975
400-118307-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	295975
400-118307-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	295975
LCS 400-295975/13-A	Lab Control Sample	Total/NA	Water	7470A	295975
MB 400-295975/12-A	Method Blank	Total/NA	Water	7470A	295975

Analysis Batch: 296882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-C-1-C MS ^25	Matrix Spike	Total Recoverable	Water	6020	296075
400-118187-C-1-D MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	296075
400-118188-1 - DL	MW-101	Total Recoverable	Water	6020	296075
400-118188-2 - DL	DUP-01	Total Recoverable	Water	6020	296075
400-118188-3 - DL	MW-102	Total Recoverable	Water	6020	296075
400-118188-4 - DL	MW-103	Total Recoverable	Water	6020	296075
400-118188-5 - DL	MW-104	Total Recoverable	Water	6020	296075
400-118188-6 - DL	MW-105	Total Recoverable	Water	6020	296075
400-118188-7 - DL	MW-106	Total Recoverable	Water	6020	296075
400-118188-8 - DL	DUP-02	Total Recoverable	Water	6020	296075
400-118188-9	FB-01	Total Recoverable	Water	6020	296075
400-118188-10	EB-01	Total Recoverable	Water	6020	296075
400-118188-11 - DL	MW-109	Total Recoverable	Water	6020	296075
400-118188-12 - DL	MW-110	Total Recoverable	Water	6020	296075
LCS 400-296075/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	296075
MB 400-296075/1-A ^5	Method Blank	Total Recoverable	Water	6020	296075
MRL 400-296882/22	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 296980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-4 - RADL	MW-103	Total Recoverable	Water	6020	296075
400-118188-5 - DL2	MW-104	Total Recoverable	Water	6020	296075
400-118188-6 - RADL	MW-105	Total Recoverable	Water	6020	296075
400-118188-7 - RADL	MW-106	Total Recoverable	Water	6020	296075

Metals (Continued)

Analysis Batch: 296980 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-8 - RADL	DUP-02	Total Recoverable	Water	6020	296075
400-118188-11 - RADL	MW-109	Total Recoverable	Water	6020	296075
400-118188-12 - RADL	MW-110	Total Recoverable	Water	6020	296075
MRL 400-296980/22	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 295907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	SM 2540C	
400-118188-2	DUP-01	Total/NA	Water	SM 2540C	
400-118188-3	MW-102	Total/NA	Water	SM 2540C	
400-118188-4	MW-103	Total/NA	Water	SM 2540C	
400-118188-5	MW-104	Total/NA	Water	SM 2540C	
400-118188-6	MW-105	Total/NA	Water	SM 2540C	
400-118188-6 DU	MW-105	Total/NA	Water	SM 2540C	
400-118188-7	MW-106	Total/NA	Water	SM 2540C	
400-118188-8	DUP-02	Total/NA	Water	SM 2540C	
400-118188-9	FB-01	Total/NA	Water	SM 2540C	
400-118188-10	EB-01	Total/NA	Water	SM 2540C	
LCS 400-295907/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-295907/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 296003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-118187-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-118188-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-118188-2	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-118188-3	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-118188-4	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-118188-5	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-118188-6	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-118188-7	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-118188-8	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-118188-9	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-118188-10	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-118188-11	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-118188-12	MW-110	Total/NA	Water	SM 4500 SO4 E	
LCS 400-296003/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-296003/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MRL 400-296003/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 296041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-118188-2	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-118188-3	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-118188-3 MS	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-118188-3 MSD	MW-102	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 296041 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-4	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-118188-5	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-118188-6	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-118188-7	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-118188-8	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-118188-9	FB-01	Total/NA	Water	SM 4500 Cl- E	
LCS 400-296041/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-296041/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MRL 400-296041/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 296305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-11	MW-109	Total/NA	Water	SM 2540C	
400-118188-11 DU	MW-109	Total/NA	Water	SM 2540C	
400-118188-12	MW-110	Total/NA	Water	SM 2540C	
LCS 400-296305/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-296305/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 296555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-10	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-118188-11	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-118188-12	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-118307-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-118307-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-296555/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-296555/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MRL 400-296555/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 297499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-117913-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-117913-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-118188-1	MW-101	Total/NA	Water	SM 4500 F C	
400-118188-2	DUP-01	Total/NA	Water	SM 4500 F C	
400-118188-3	MW-102	Total/NA	Water	SM 4500 F C	
400-118188-4	MW-103	Total/NA	Water	SM 4500 F C	
400-118188-4 DU	MW-103	Total/NA	Water	SM 4500 F C	
400-118188-5	MW-104	Total/NA	Water	SM 4500 F C	
400-118188-6	MW-105	Total/NA	Water	SM 4500 F C	
400-118188-7	MW-106	Total/NA	Water	SM 4500 F C	
400-118188-8	DUP-02	Total/NA	Water	SM 4500 F C	
400-118188-9	FB-01	Total/NA	Water	SM 4500 F C	
400-118188-10	EB-01	Total/NA	Water	SM 4500 F C	
400-118188-11	MW-109	Total/NA	Water	SM 4500 F C	
LCS 400-297499/6	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297499/5	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 297502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-12	MW-110	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 297502 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-12 MS	MW-110	Total/NA	Water	SM 4500 F C	
400-118188-12 MSD	MW-110	Total/NA	Water	SM 4500 F C	
400-118657-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-297502/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297502/3	Method Blank	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 239065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	PrecSep-21	
400-118188-2	DUP-01	Total/NA	Water	PrecSep-21	
490-98290-E-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
490-98290-H-2-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
490-98310-E-5-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
490-98310-E-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
LCS 160-239065/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-239065/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-3	MW-102	Total/NA	Water	PrecSep-21	
400-118188-4	MW-103	Total/NA	Water	PrecSep-21	
400-118188-5	MW-104	Total/NA	Water	PrecSep-21	
400-118188-6	MW-105	Total/NA	Water	PrecSep-21	
400-118188-7	MW-106	Total/NA	Water	PrecSep-21	
400-118188-8	DUP-02	Total/NA	Water	PrecSep-21	
400-118188-9	FB-01	Total/NA	Water	PrecSep-21	
400-118188-10	EB-01	Total/NA	Water	PrecSep-21	
LCS 160-239191/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-239191/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-239191/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	PrecSep_0	
400-118188-2	DUP-01	Total/NA	Water	PrecSep_0	
490-98290-E-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
490-98290-H-2-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	
490-98310-E-5-E MS	Matrix Spike	Total/NA	Water	PrecSep_0	
490-98310-E-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
LCS 160-239370/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-239370/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 239373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-3	MW-102	Total/NA	Water	PrecSep_0	
400-118188-4	MW-103	Total/NA	Water	PrecSep_0	
400-118188-5	MW-104	Total/NA	Water	PrecSep_0	
400-118188-6	MW-105	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 239373 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-7	MW-106	Total/NA	Water	PrecSep_0	
400-118188-8	DUP-02	Total/NA	Water	PrecSep_0	
400-118188-9	FB-01	Total/NA	Water	PrecSep_0	
400-118188-10	EB-01	Total/NA	Water	PrecSep_0	
LCS 160-239373/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-239373/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-239373/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 239388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-75413-B-11-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
310-75413-C-11-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
400-118188-11	MW-109	Total/NA	Water	PrecSep-21	
400-118188-12	MW-110	Total/NA	Water	PrecSep-21	
LCS 160-239388/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-239388/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-75413-B-11-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
310-75413-C-11-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	
400-118188-11	MW-109	Total/NA	Water	PrecSep_0	
400-118188-12	MW-110	Total/NA	Water	PrecSep_0	
LCS 160-239468/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-239468/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 296178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-1	MW-101	Total/NA	Water	Field Sampling	
400-118188-2	DUP-01	Total/NA	Water	Field Sampling	
400-118188-3	MW-102	Total/NA	Water	Field Sampling	
400-118188-4	MW-103	Total/NA	Water	Field Sampling	
400-118188-5	MW-104	Total/NA	Water	Field Sampling	
400-118188-6	MW-105	Total/NA	Water	Field Sampling	
400-118188-7	MW-106	Total/NA	Water	Field Sampling	
400-118188-8	DUP-02	Total/NA	Water	Field Sampling	
400-118188-11	MW-109	Total/NA	Water	Field Sampling	
400-118188-12	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-296882/22
Matrix: Water
Analysis Batch: 296882

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.520	I	ug/L		104	
Arsenic	0.250	0.33	U	ug/L		108	
Barium	0.500	0.469	I	ug/L		94	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		94	
Cadmium	0.250	0.277	I	ug/L		111	
Calcium	50.0	130	U	ug/L		111	
Chromium	0.500	0.517	I	ug/L		103	
Cobalt	0.500	0.478	I	ug/L		96	
Lead	0.250	0.33	U	ug/L		96	
Lithium	0.500	1.6	U	ug/L		136	
Molybdenum	0.500	0.506	I	ug/L		101	
Selenium	0.250	0.244	I	ug/L		98	
Thallium	0.100	0.101	I	ug/L		101	

Lab Sample ID: MRL 400-296980/22
Matrix: Water
Analysis Batch: 296980

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.558	I	ug/L		112	
Arsenic	0.250	0.33	U	ug/L		102	
Barium	0.500	0.45	U	ug/L		86	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		93	
Cadmium	0.250	0.279	I	ug/L		112	
Calcium	50.0	130	U	ug/L		104	
Chromium	0.500	0.476	I	ug/L		95	
Cobalt	0.500	0.464	I	ug/L		93	
Lead	0.250	0.33	U	ug/L		86	
Lithium	0.500	1.6	U	ug/L		55	
Molybdenum	0.500	0.444	I	ug/L		89	
Selenium	0.250	0.254	I	ug/L		102	
Thallium	0.100	0.0950	I	ug/L		95	

Lab Sample ID: MB 400-296075/1-A ^5
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/04/16 10:50	03/09/16 17:40	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:40	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/04/16 10:50	03/09/16 17:40	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/09/16 17:40	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/09/16 17:40	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/09/16 17:40	5
Calcium	0.13	U	0.25	0.13	mg/L		03/04/16 10:50	03/09/16 17:40	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/09/16 17:40	5

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

Lab Sample ID: MB 400-296075/1-A ^5
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/04/16 10:50	03/09/16 17:40	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:40	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/09/16 17:40	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/09/16 17:40	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/09/16 17:40	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/09/16 17:40	5

Lab Sample ID: LCS 400-296075/2-A ^1
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0517		mg/L		103	80 - 120
Arsenic	0.0500	0.0523		mg/L		105	80 - 120
Barium	0.0500	0.0466		mg/L		93	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0948		mg/L		95	80 - 120
Cadmium	0.0500	0.0512		mg/L		102	80 - 120
Calcium	5.00	5.11		mg/L		102	80 - 120
Chromium	0.0500	0.0492		mg/L		98	80 - 120
Cobalt	0.0500	0.0480		mg/L		96	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0517		mg/L		103	80 - 120
Molybdenum	0.0500	0.0474		mg/L		95	80 - 120
Selenium	0.0500	0.0513		mg/L		103	80 - 120
Thallium	0.0100	0.00961		mg/L		96	80 - 120

Lab Sample ID: 400-118187-C-1-C MS ^25
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0043	U	0.0500	0.0583		mg/L		117	75 - 125
Arsenic	0.0017	U	0.0500	0.0529		mg/L		106	75 - 125
Barium	0.012	I	0.0500	0.0557		mg/L		88	75 - 125
Beryllium	0.00030	U	0.0500	0.0477		mg/L		95	75 - 125
Boron	0.090	U	0.100	0.163	I J3	mg/L		163	75 - 125
Cadmium	0.00043	U	0.0500	0.0498		mg/L		100	75 - 125
Calcium	1.2	I	5.00	6.31		mg/L		103	75 - 125
Chromium	0.0019	U	0.0500	0.0492		mg/L		98	75 - 125
Cobalt	0.00050	U	0.0500	0.0490		mg/L		98	75 - 125
Lead	0.0017	U	0.0500	0.0465		mg/L		93	75 - 125
Lithium	0.0080	U	0.0500	0.0661	J3	mg/L		132	75 - 125
Molybdenum	0.0010	U	0.0500	0.0483	I	mg/L		97	75 - 125
Selenium	0.0012	U	0.0500	0.0529		mg/L		106	75 - 125
Thallium	0.00013	U	0.0100	0.00955		mg/L		96	75 - 125

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

Lab Sample ID: 400-118187-C-1-D MSD ^25 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 296882 — **Prep Batch: 296075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0043	U	0.0500	0.0539		mg/L		108	75 - 125	8	20
Arsenic	0.0017	U	0.0500	0.0518		mg/L		104	75 - 125	2	20
Barium	0.012	I	0.0500	0.0591		mg/L		95	75 - 125	6	20
Beryllium	0.00030	U	0.0500	0.0483		mg/L		97	75 - 125	1	20
Boron	0.090	U	0.100	0.149	I J3	mg/L		149	75 - 125	9	20
Cadmium	0.00043	U	0.0500	0.0540		mg/L		108	75 - 125	8	20
Calcium	1.2	I	5.00	6.11		mg/L		99	75 - 125	3	20
Chromium	0.0019	U	0.0500	0.0506		mg/L		101	75 - 125	3	20
Cobalt	0.00050	U	0.0500	0.0485		mg/L		97	75 - 125	1	20
Lead	0.0017	U	0.0500	0.0452		mg/L		90	75 - 125	3	20
Lithium	0.0080	U	0.0500	0.0729	J3	mg/L		146	75 - 125	10	20
Molybdenum	0.0010	U	0.0500	0.0452	I	mg/L		90	75 - 125	7	20
Selenium	0.0012	U	0.0500	0.0536		mg/L		107	75 - 125	1	20
Thallium	0.00013	U	0.0100	0.00975		mg/L		98	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-295705/12-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 296056 — **Prep Batch: 295705**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/01/16 12:31	03/03/16 13:08	1

Lab Sample ID: LCS 400-295705/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 296056 — **Prep Batch: 295705**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000955		mg/L		95	80 - 120

Lab Sample ID: 400-118188-1 MS — **Client Sample ID: MW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 296056 — **Prep Batch: 295705**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00188		mg/L		93	80 - 120

Lab Sample ID: 400-118188-1 MSD — **Client Sample ID: MW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 296056 — **Prep Batch: 295705**

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	0.00191		mg/L		95	80 - 120	2	20

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

Lab Sample ID: MB 400-295975/12-A
Matrix: Water
Analysis Batch: 296492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295975

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/03/16 09:19	03/07/16 12:09	1

Lab Sample ID: LCS 400-295975/13-A
Matrix: Water
Analysis Batch: 296492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00103		mg/L		102	80 - 120

Lab Sample ID: 400-118307-C-1-B MS
Matrix: Water
Analysis Batch: 296492

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 295975

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0027		0.00201	0.00435		mg/L		81	80 - 120

Lab Sample ID: 400-118307-C-1-C MSD
Matrix: Water
Analysis Batch: 296492

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 295975

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0027		0.00201	0.00414	J3	mg/L		71	80 - 120	5	20

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

Lab Sample ID: MB 400-295907/1
Matrix: Water
Analysis Batch: 295907

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			03/02/16 17:04	1

Lab Sample ID: LCS 400-295907/2
Matrix: Water
Analysis Batch: 295907

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-118188-6 DU
Matrix: Water
Analysis Batch: 295907

Client Sample ID: MW-105
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	290		288		mg/L		0	5

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

Lab Sample ID: MB 400-296305/1
Matrix: Water
Analysis Batch: 296305

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			03/04/16 18:03	1

Lab Sample ID: LCS 400-296305/2
Matrix: Water
Analysis Batch: 296305

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	258		mg/L		88	78 - 122

Lab Sample ID: 400-118188-11 DU
Matrix: Water
Analysis Batch: 296305

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	30		30.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-296041/6
Matrix: Water
Analysis Batch: 296041

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/03/16 11:53	1

Lab Sample ID: LCS 400-296041/7
Matrix: Water
Analysis Batch: 296041

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	29.5		mg/L		98	90 - 110

Lab Sample ID: MRL 400-296041/3
Matrix: Water
Analysis Batch: 296041

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	1.51	I	mg/L		75	50 - 150

Lab Sample ID: 400-118188-3 MS
Matrix: Water
Analysis Batch: 296041

Client Sample ID: MW-102
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.8		10.0	15.6		mg/L		108	73 - 120

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

Lab Sample ID: 400-118188-3 MSD
Matrix: Water
Analysis Batch: 296041

Client Sample ID: MW-102
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.8		10.0	15.7		mg/L		109	73 - 120	1	8

Lab Sample ID: MB 400-296555/6
Matrix: Water
Analysis Batch: 296555

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/07/16 14:32	1

Lab Sample ID: LCS 400-296555/7
Matrix: Water
Analysis Batch: 296555

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	30.4		mg/L		101	90 - 110

Lab Sample ID: MRL 400-296555/3
Matrix: Water
Analysis Batch: 296555

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	1.61	I	mg/L		81	50 - 150

Lab Sample ID: 400-118307-B-4 MS
Matrix: Water
Analysis Batch: 296555

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	6.2		10.0	15.5		mg/L		93	73 - 120

Lab Sample ID: 400-118307-B-4 MSD
Matrix: Water
Analysis Batch: 296555

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	6.2		10.0	15.5		mg/L		93	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-297499/5
Matrix: Water
Analysis Batch: 297499

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			03/15/16 13:46	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-297499/6
Matrix: Water
Analysis Batch: 297499

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	3.95		mg/L		99	90 - 110		

Lab Sample ID: 400-117913-A-6 MS
Matrix: Water
Analysis Batch: 297499

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	0.085	I	1.00	0.788	J3	mg/L		70	75 - 125		

Lab Sample ID: 400-117913-A-6 MSD
Matrix: Water
Analysis Batch: 297499

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	0.085	I	1.00	0.804	J3	mg/L		72	75 - 125	2	4

Lab Sample ID: 400-118188-4 DU
Matrix: Water
Analysis Batch: 297499

Client Sample ID: MW-103
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.037	I		0.0330	I J3	mg/L				11	4

Lab Sample ID: MB 400-297502/3
Matrix: Water
Analysis Batch: 297502

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			03/15/16 15:42	1

Lab Sample ID: LCS 400-297502/4
Matrix: Water
Analysis Batch: 297502

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	4.28		mg/L		107	90 - 110		

Lab Sample ID: 400-118188-12 MS
Matrix: Water
Analysis Batch: 297502

Client Sample ID: MW-110
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.039	I	1.00	1.06		mg/L		102	75 - 125		

Lab Sample ID: 400-118188-12 MSD
Matrix: Water
Analysis Batch: 297502

Client Sample ID: MW-110
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.039	I	1.00	1.04		mg/L		100	75 - 125	2	4

Lab Sample ID: 400-118657-A-3 DU
Matrix: Water
Analysis Batch: 297502

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.033	I		0.0330	I	mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-296003/6
Matrix: Water
Analysis Batch: 296003

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			03/03/16 10:05	1

Lab Sample ID: LCS 400-296003/7
Matrix: Water
Analysis Batch: 296003

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	14.8		mg/L		99	90 - 110		

Lab Sample ID: MRL 400-296003/3
Matrix: Water
Analysis Batch: 296003

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	4.92	I	mg/L		98	50 - 150		

Lab Sample ID: 400-118187-B-3 MS
Matrix: Water
Analysis Batch: 296003

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	1.6	I	10.0	12.9		mg/L		113	77 - 128		

Lab Sample ID: 400-118187-B-3 MSD
Matrix: Water
Analysis Batch: 296003

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	1.6	I	10.0	12.8		mg/L		112	77 - 128	1	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-239065/1-A
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239065

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05090	U	0.0489	0.0491	1.00	0.0766	pCi/L	03/03/16 16:24	03/27/16 14:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*03/03/16 16:24*	*03/27/16 14:47*	*1*

Lab Sample ID: LCS 160-239065/2-A
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239065

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.73		1.24	1.00	0.0828	pCi/L	114	68 - 137		

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

Lab Sample ID: 490-98290-E-2-B MSD
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239065

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	0.0139	U	11.2	11.64		1.14	1.00	0.101	pCi/L	104	75 - 138	0.57	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*105*		*40 - 110*

Lab Sample ID: 490-98290-H-2-A MS
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239065

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.0139	U	11.2	13.02		1.27	1.00	0.0972	pCi/L	117	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*96.9*		*40 - 110*

Lab Sample ID: 490-98310-E-5-B MS
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239065

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.224		11.2	13.34		1.30	1.00	0.0704	pCi/L	118	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*

Lab Sample ID: 490-98310-E-5-C MSD
Matrix: Water
Analysis Batch: 242410

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239065

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	0.224		11.2	13.31		1.30	1.00	0.109	pCi/L	117	75 - 138	0.01	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.7*		*40 - 110*

Lab Sample ID: MB 160-239191/1-A
Matrix: Water
Analysis Batch: 242443

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239191

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04993	U	0.0415	0.0417	1.00	0.0614	pCi/L	03/04/16 10:28	03/28/16 07:41	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/04/16 10:28*	*03/28/16 07:41*	*1*

Lab Sample ID: LCS 160-239191/2-A
Matrix: Water
Analysis Batch: 242443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239191

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.89		1.26	1.00	0.0666	pCi/L	115	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*

Lab Sample ID: LCSD 160-239191/3-A
Matrix: Water
Analysis Batch: 242443

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239191

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	13.37		1.31	1.00	0.0712	pCi/L	120	68 - 137	0.19	1

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

Lab Sample ID: MB 160-239388/1-A
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239388

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02357	U	0.0443	0.0443	1.00	0.0777	pCi/L	03/07/16 13:43	03/29/16 08:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/07/16 13:43*	*03/29/16 08:39*	*1*

Lab Sample ID: LCS 160-239388/2-A
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239388

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.03		1.17	1.00	0.0831	pCi/L	108	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*

Lab Sample ID: 310-75413-B-11-B MSD
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239388

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	0.117		11.4	13.24		1.29	1.00	0.0625	pCi/L	115	75 - 138	0.46	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*92.9*		*40 - 110*

Lab Sample ID: 310-75413-C-11-A MS
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239388

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.117		11.5	12.11		1.19	1.00	0.0770	pCi/L	104	75 - 138

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-239370/1-A
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239370

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2286	U	0.291	0.292	1.00	0.483	pCi/L	03/07/16 10:28	03/21/16 12:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:08*	*1*
Y Carrier	*86.0*		*40 - 110*	*03/07/16 10:28*	*03/21/16 12:08*	*1*

Lab Sample ID: LCS 160-239370/2-A
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239370

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228			9.26	10.25		1.17	1.00	0.409	pCi/L	111	56 - 140

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 490-98290-E-2-D MSD
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239370

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	0.246	U	9.26	9.451		1.09	1.00	0.371	pCi/L	102	45 - 150	0.29	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*105*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Lab Sample ID: 490-98290-H-2-B MS
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239370

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.246	U	9.26	8.831		1.04	1.00	0.372	pCi/L	95	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*96.9*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Lab Sample ID: 490-98310-E-5-E MS
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239370

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.443		9.26	9.612		1.11	1.00	0.382	pCi/L	99	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Lab Sample ID: 490-98310-E-5-F MSD
Matrix: Water
Analysis Batch: 241346

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239370

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	0.443		9.26	10.14		1.18	1.00	0.457	pCi/L	105	45 - 150	0.23	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.7*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-239373/1-A
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239373

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3144	U	0.242	0.244	1.00	0.381	pCi/L	03/07/16 11:03	03/21/16 16:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:48*	*1*
Y Carrier	*79.6*		*40 - 110*	*03/07/16 11:03*	*03/21/16 16:48*	*1*

Lab Sample ID: LCS 160-239373/2-A
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239373

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.26	10.38		1.22	1.00	0.445	pCi/L	112	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*
Y Carrier	*80.0*		*40 - 110*

Lab Sample ID: LCSD 160-239373/3-A
Matrix: Water
Analysis Batch: 241347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239373

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.26	9.759		1.12	1.00	0.348	pCi/L	105	56 - 140	0.26	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: MB 160-239468/1-A
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239468

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.136		0.357	0.372	1.00	0.487	pCi/L	03/08/16 10:28	03/23/16 08:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:30*	*1*
Y Carrier	*72.1*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:30*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-239468/2-A
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239468

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.26	9.559		1.08	1.00	0.361	pCi/L	103	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Lab Sample ID: 310-75413-B-11-D MSD
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239468

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	0.242	U	9.44	10.81		1.36	1.00	0.699	pCi/L	115	45 - 150	0.23	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*92.9*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

Lab Sample ID: 310-75413-C-11-B MS
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239468

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.242	U	9.53	10.23		1.17	1.00	0.413	pCi/L	107	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*
Y Carrier	*81.1*		*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 Sowles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53117-23628.1
Client Contact: Carl Eldred	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32301				
Phone:	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	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
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)
Other:

400-118188 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; SM4600_SO4_E; 4500_F_C - Fluoride; 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl; 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
MW-101	2/29/16	1433	G	Water			X	X	X			5,26
[redacted]DUP-01	2/29/16	1333	G	Water			X	X	X			5,26
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				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
1	[signature]	2-29-16 1600	TAL	[signature]	2/29/16 1600	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 2-29-16 ~~15:45~~ 1600	Company TA

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.2° C IR3 SAKERS 2-29-16

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

Chain of Custody Record

400-118188

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53117-23628.1
Client Contact: Carl Eldred	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32301				
Phone:	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	SSOW#:			

Analysis Requested

Preservation Codes: 400-118188 COC

A - HCL	M -
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
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	SM4500_Cl_E, SM4500_SO4_E, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
[redacted]	—	—	—	Water								
MW-102	3/1/16	1343	G	Water			X	X	X			5.03
MW-103	3/1/16	1206	G	Water			X	X	X			5.86
MW-104	3/1/16	1455	G	Water			X	X	X			4.09
MW-105	3/1/16	1310	G	Water			X	X	X			6.12
MW-106	3/1/16	0945	G	Water			X	X	X			5.84
~~MW-109~~	—	—	—	Water								
~~MW-110~~	—	—	—	Water								
Dup-02	3/1/16	1106	G	WATER			X	X	X			5.86
FB-01	3/1/16	1130	G	WATER			X	X	X			
EB-01	3/1/16	1515	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
	3/1/16 1423	RDH		3-1-16 1423	
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 IR-6 3.5°C

4/11/2016

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

Chain of Custody Record

118188

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Shane Bragg	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53123-23631.1
Client Contact: Carl Eldred	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32301				
Phone:	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill - 1	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 - Na2S2SO3
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	SM4500_Cl_E, SM4500_SO4_E, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
MW-109	3-2-16	0945	G	Water			X	X	X	X		PH: 5.19
MW-110	3-2-16	1110	G	1	N		X	X	X	X		PH. 4.84

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
	3-2-16 1695	RDHGW		3/2/16 1649	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: C1 (19.3°C) IR6 C2 (11.5°C) IR6 C3 (6.9°C) IR6

Page 61 of 64

4/11/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-118188-1
SDG Number: Landfill 1

Login Number: 118188
List Number: 1
Creator: Akers, Stephanie C

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	0.2°C, IR-2; 0.1°C, 3.5°C IR-6; 9.3°C, 11.5°C, 6.9°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	05-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-16
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	05-31-16
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16
Nevada	State Program	9	MO000542016-1	07-31-16
New Jersey	NELAP	2	MO002	06-30-16
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-16

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-118188-1
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16
Texas	NELAP	6	T104704193-15-9	07-31-16
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-118307-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist
Revision: 1

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/11/2016 2:26:51 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 26
Chronicle 27
QC Association 32
QC Sample Results 38
Chain of Custody 52
Receipt Checklists 54
Certification Summary 55

Job ID: 400-118307-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-118307-1

Metals
Method(s) 7470A: The matrix spike duplicate (MSD) recovery for prep batch 295975 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 296445 and analytical batch 296980 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 due to the nature of the sample matrix: MW-200 (400-118307-1), MW-201 (400-118307-2), MW-204 (400-118307-3), MW-205 (400-118307-4), DUP-03 (400-118307-5), MW-202 (400-118307-6), MW-203 (400-118307-7) and MW-206 (400-118307-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 296291 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 296950 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.

Detection Summary

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-118307-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0059	I	0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.089		0.013	0.0023	mg/L	25		6020	Total Recoverable
Cadmium - DL	0.022		0.013	0.00043	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0024	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Lithium - DL	0.010	I	0.013	0.0080	mg/L	25		6020	Total Recoverable
Selenium - DL	0.018		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00058	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Boron - DL2	32		2.0	0.72	mg/L	200		6020	Total Recoverable
Calcium - DL2	900		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.0027		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	7200		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	1700		80	24	mg/L	40		SM 4500 Cl- E	Total/NA
Fluoride	0.088	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	400		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	5.18				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-118307-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0033	I	0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.064		0.013	0.0023	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0013	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.013		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00030	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Boron - DL2	33		2.0	0.72	mg/L	200		6020	Total Recoverable
Calcium - DL2	890		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.0026		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	7200		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	1700		80	24	mg/L	40		SM 4500 Cl- E	Total/NA
Fluoride	0.54		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	450		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	5.57				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-118307-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0065		0.0063	0.0017	mg/L	25		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-118307-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.025		0.013	0.0023	mg/L	25		6020	Total Recoverable
Beryllium - DL	0.00058	I	0.013	0.00030	mg/L	25		6020	Total Recoverable
Boron - DL	6.3		0.25	0.090	mg/L	25		6020	Total Recoverable
Calcium - DL	85		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.014		0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0035	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00035	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	730		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	64		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	430		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	5.05				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-118307-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.0062	I	0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	19		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	58		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.035	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	21		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.39				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-118307-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0065		0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.023		0.013	0.0023	mg/L	25		6020	Total Recoverable
Beryllium - DL	0.00058	I	0.013	0.00030	mg/L	25		6020	Total Recoverable
Calcium - DL	84		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.014		0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0033	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00033	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Boron - DL3	5.7		1.0	0.36	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	770		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	64		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.22		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-03 (Continued) — Lab Sample ID: 400-118307-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	430		250	70	mg/L	50		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-118307-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.012	I	0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	7.2		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0011	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Boron - RADL	0.24	I	0.25	0.090	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.042	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	17		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.24				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-118307-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.037		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	25		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0040	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0025	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00013	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Boron - RADL	1.5		0.25	0.090	mg/L	25		6020	Total Recoverable
Mercury	0.00013	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	19		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.085	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	88		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.88				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-118307-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.021		0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.13		0.013	0.0023	mg/L	25		6020	Total Recoverable
Beryllium - DL	0.00055	I	0.013	0.00030	mg/L	25		6020	Total Recoverable
Cadmium - DL	0.0031	I	0.013	0.00043	mg/L	25		6020	Total Recoverable
Chromium - DL	0.0026	I	0.013	0.0019	mg/L	25		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-206 (Continued)

Lab Sample ID: 400-118307-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt - DL	0.0074	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Lead - DL	0.011		0.0063	0.0017	mg/L	25		6020	Total Recoverable
Selenium - DL	0.026		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00095	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Calcium - DL2	2400		10	5.0	mg/L	200		6020	Total Recoverable
Boron - DL3	82		5.0	1.8	mg/L	500		6020	Total Recoverable
Mercury	0.00024		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	32000		83	57	mg/L	1		SM 2540C	Total/NA
Chloride	4700		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.074	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	460		75	21	mg/L	15		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 Plant Crist

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-118307-1	MW-200	Water	03/02/16 13:35	03/02/16 16:46
400-118307-2	MW-201	Water	03/02/16 15:17	03/02/16 16:46
400-118307-3	MW-204	Water	03/02/16 13:55	03/02/16 16:46
400-118307-4	MW-205	Water	03/02/16 15:25	03/02/16 16:46
400-118307-5	DUP-03	Water	03/02/16 12:55	03/02/16 16:46
400-118307-6	MW-202	Water	03/02/16 16:47	03/04/16 09:00
400-118307-7	MW-203	Water	03/03/16 10:10	03/04/16 09:00
400-118307-8	MW-206	Water	03/02/16 18:17	03/04/16 09:00

Client Sample ID: MW-200

Date Collected: 03/02/16 13:35
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 20:06	25
Arsenic	**0.0059**	**I**	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 20:06	25
Barium	**0.089**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 20:06	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 20:06	25
Cadmium	**0.022**		0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 20:06	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 20:06	25
Cobalt	**0.0024**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 20:06	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 20:06	25
Lithium	**0.010**	**I**	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 20:06	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 20:06	25
Selenium	**0.018**		0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 20:06	25
Thallium	**0.00058**	**I**	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 20:06	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**32**		2.0	0.72	mg/L		03/04/16 10:50	03/10/16 12:30	200
Calcium	**900**		10	5.0	mg/L		03/04/16 10:50	03/10/16 12:30	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0027**		0.00020	0.000070	mg/L		03/03/16 09:23	03/07/16 12:26	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7200**		50	34	mg/L			03/08/16 18:14	1
Chloride	**1700**		80	24	mg/L			03/07/16 17:14	40
Fluoride	**0.088**	**I**	0.10	0.032	mg/L			03/15/16 16:37	1
Sulfate	**400**		250	70	mg/L			03/04/16 16:45	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**7.68**		0.374	0.786	1.00	0.0830	pCi/L	03/07/16 13:43	03/29/16 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*40 - 110*	*03/07/16 13:43*	*03/29/16 12:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**15.3**		0.858	1.65	1.00	0.349	pCi/L	03/08/16 10:28	03/23/16 08:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 03/02/16 13:35
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-1
Matrix: Water

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	22.9		0.936	1.82	5.00	0.349	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.18				SU			03/02/16 13:35	1

Client Sample ID: MW-201

Date Collected: 03/02/16 15:17
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/04/16 10:50	03/09/16 20:10	25
Arsenic	**0.0033**	**I**	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 20:10	25
Barium	**0.064**		0.013	0.0023	mg/L		03/04/16 10:50	03/09/16 20:10	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/04/16 10:50	03/09/16 20:10	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/04/16 10:50	03/09/16 20:10	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/04/16 10:50	03/09/16 20:10	25
Cobalt	**0.0013**	**I**	0.013	0.00050	mg/L		03/04/16 10:50	03/09/16 20:10	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/04/16 10:50	03/09/16 20:10	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/04/16 10:50	03/09/16 20:10	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/04/16 10:50	03/09/16 20:10	25
Selenium	**0.013**		0.0063	0.0012	mg/L		03/04/16 10:50	03/09/16 20:10	25
Thallium	**0.00030**	**I**	0.0025	0.00013	mg/L		03/04/16 10:50	03/09/16 20:10	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**33**		2.0	0.72	mg/L		03/04/16 10:50	03/10/16 12:35	200
Calcium	**890**		10	5.0	mg/L		03/04/16 10:50	03/10/16 12:35	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0026**		0.00020	0.000070	mg/L		03/03/16 09:23	03/07/16 12:32	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7200**		50	34	mg/L			03/08/16 18:14	1
Chloride	**1700**		80	24	mg/L			03/07/16 17:16	40
Fluoride	**0.54**		0.10	0.032	mg/L			03/15/16 16:40	1
Sulfate	**450**		250	70	mg/L			03/04/16 16:48	50

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**		0.448	1.01	1.00	0.0983	pCi/L	03/07/16 13:43	03/29/16 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*03/07/16 13:43*	*03/29/16 12:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**12.0**		0.811	1.37	1.00	0.417	pCi/L	03/08/16 10:28	03/23/16 08:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*
Y Carrier	*82.6*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-201
Date Collected: 03/02/16 15:17
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-2
Matrix: Water

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	22.1		0.927	1.71	5.00	0.417	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.57				SU			03/02/16 15:17	1

Client Sample ID: MW-204
Date Collected: 03/02/16 13:55
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-3
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:23	25
Arsenic	**0.0065**		0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:23	25
Barium	**0.025**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:23	25
Beryllium	**0.00058**	**I**	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:23	25
Boron	**6.3**		0.25	0.090	mg/L		03/07/16 11:43	03/10/16 16:23	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:23	25
Calcium	**85**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:23	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:23	25
Cobalt	**0.014**		0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:23	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:23	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:23	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:23	25
Selenium	**0.0035**	**I**	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:23	25
Thallium	**0.00035**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:23	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		03/03/16 09:23	03/07/16 12:34	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**730**		5.0	3.4	mg/L			03/08/16 18:14	1
Chloride	**64**		4.0	1.2	mg/L			03/07/16 16:37	2
Fluoride	**0.23**		0.10	0.032	mg/L			03/15/16 16:50	1
Sulfate	**430**		250	70	mg/L			03/04/16 16:49	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.70**		0.180	0.236	1.00	0.0784	pCi/L	03/07/16 13:43	03/29/16 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/07/16 13:43*	*03/29/16 12:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**12.1**		0.754	1.34	1.00	0.409	pCi/L	03/08/16 10:28	03/23/16 08:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:46*	*1*
Y Carrier	*85.2*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:46*	*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	**13.8**		0.775	1.36	5.00	0.409	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204
Date Collected: 03/02/16 13:55
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.05				SU			03/02/16 13:55	1

Client Sample ID: MW-205

Date Collected: 03/02/16 15:25
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:47	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:47	25
Barium	**0.0062**	**I**	0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:47	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:47	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:47	25
Calcium	**19**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:47	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:47	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:47	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:47	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:47	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:47	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:47	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:47	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.090	U	0.25	0.090	mg/L		03/07/16 11:43	03/16/16 17:11	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		03/03/16 09:23	03/07/16 12:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**58**		5.0	3.4	mg/L			03/08/16 18:14	1
Chloride	**6.2**		2.0	0.60	mg/L			03/07/16 15:47	1
Fluoride	**0.035**	**I**	0.10	0.032	mg/L			03/15/16 16:52	1
Sulfate	**21**		5.0	1.4	mg/L			03/04/16 16:33	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.137**		0.0729	0.0739	1.00	0.101	pCi/L	03/07/16 13:43	03/29/16 12:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*03/07/16 13:43*	*03/29/16 12:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.224	U	0.228	0.229	1.00	0.371	pCi/L	03/08/16 10:28	03/23/16 08:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205
Date Collected: 03/02/16 15:25
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-4
Matrix: Water

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	0.361	U	0.239	0.241	5.00	0.371	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.39**				SU			03/02/16 15:25	1

Client Sample ID: DUP-03

Date Collected: 03/02/16 12:55
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:56	25
Arsenic	**0.0065**		0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:56	25
Barium	**0.023**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:56	25
Beryllium	**0.00058**	**I**	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:56	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:56	25
Calcium	**84**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:56	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:56	25
Cobalt	**0.014**		0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:56	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:56	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:56	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:56	25
Selenium	**0.0033**	**I**	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:56	25
Thallium	**0.00033**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:56	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL3

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.7**		1.0	0.36	mg/L		03/07/16 11:43	03/16/16 17:16	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		03/03/16 09:23	03/07/16 12:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**770**		5.0	3.4	mg/L			03/08/16 18:14	1
Chloride	**64**		4.0	1.2	mg/L			03/07/16 16:37	2
Fluoride	**0.22**		0.10	0.032	mg/L			03/16/16 18:18	1
Sulfate	**430**		250	70	mg/L			03/04/16 16:49	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.55**		0.172	0.222	1.00	0.0732	pCi/L	03/07/16 15:25	03/29/16 06:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*40 - 110*	*03/07/16 15:25*	*03/29/16 06:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**11.2**		0.676	1.23	1.00	0.364	pCi/L	03/08/16 10:30	03/22/16 17:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:31*	*1*
Y Carrier	*87.1*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:31*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-03
Date Collected: 03/02/16 12:55
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-5
Matrix: Water

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	12.7		0.697	1.25	5.00	0.364	pCi/L		04/11/16 13:05	1

Client Sample ID: MW-202

Date Collected: 03/02/16 16:47
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 17:05	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 17:05	25
Barium	**0.012**	**I**	0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 17:05	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 17:05	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 17:05	25
Calcium	**7.2**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 17:05	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 17:05	25
Cobalt	**0.0011**	**I**	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 17:05	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 17:05	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 17:05	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 17:05	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 17:05	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 17:05	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.24**	**I**	0.25	0.090	mg/L		03/07/16 11:43	03/16/16 17:21	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		03/07/16 10:02	03/10/16 13:43	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**50**		5.0	3.4	mg/L			03/08/16 18:14	1
Chloride	**12**		2.0	0.60	mg/L			03/07/16 15:47	1
Fluoride	**0.042**	**I**	0.10	0.032	mg/L			03/16/16 18:11	1
Sulfate	**17**		5.0	1.4	mg/L			03/10/16 11:32	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.782**		0.127	0.145	1.00	0.0715	pCi/L	03/07/16 15:25	03/29/16 06:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/07/16 15:25*	*03/29/16 06:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.690**		0.263	0.271	1.00	0.365	pCi/L	03/08/16 10:30	03/22/16 17:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:31*	*1*
Y Carrier	*83.4*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:31*	*1*

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202
Date Collected: 03/02/16 16:47
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-6
Matrix: Water

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	1.47		0.292	0.307	5.00	0.365	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.24				SU			03/02/16 16:47	1

Client Sample ID: MW-203
Date Collected: 03/03/16 10:10
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-7
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 17:15	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 17:15	25
Barium	**0.037**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 17:15	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 17:15	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 17:15	25
Calcium	**25**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 17:15	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 17:15	25
Cobalt	**0.0040**	**I**	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 17:15	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 17:15	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 17:15	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 17:15	25
Selenium	**0.0025**	**I**	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 17:15	25
Thallium	**0.00013**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 17:15	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.5**		0.25	0.090	mg/L		03/07/16 11:43	03/16/16 17:26	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00013**	**I**	0.00020	0.000070	mg/L		03/07/16 10:02	03/10/16 13:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**190**		5.0	3.4	mg/L			03/08/16 19:01	1
Chloride	**19**		2.0	0.60	mg/L			03/07/16 15:49	1
Fluoride	**0.085**	**I**	0.10	0.032	mg/L			03/16/16 18:20	1
Sulfate	**88**		50	14	mg/L			03/24/16 13:16	10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.51**		0.228	0.321	1.00	0.111	pCi/L	03/07/16 15:25	03/29/16 06:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*03/07/16 15:25*	*03/29/16 06:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.45**		0.494	0.642	1.00	0.407	pCi/L	03/08/16 10:30	03/22/16 17:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:31*	*1*
Y Carrier	*83.7*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:31*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203
Date Collected: 03/03/16 10:10
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-7
Matrix: Water

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	6.96		0.544	0.718	5.00	0.407	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.88				SU			03/03/16 10:10	1

Client Sample ID: MW-206

Date Collected: 03/02/16 18:17
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 17:24	25
Arsenic	**0.021**		0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 17:24	25
Barium	**0.13**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 17:24	25
Beryllium	**0.00055**	I	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 17:24	25
Cadmium	**0.0031**	I	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 17:24	25
Chromium	**0.0026**	I	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 17:24	25
Cobalt	**0.0074**	I	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 17:24	25
Lead	**0.011**		0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 17:24	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 17:24	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 17:24	25
Selenium	**0.026**		0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 17:24	25
Thallium	**0.00095**	I	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 17:24	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**2400**		10	5.0	mg/L		03/07/16 11:43	03/10/16 17:29	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL3

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**82**		5.0	1.8	mg/L		03/07/16 11:43	03/16/16 17:30	500

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00024**		0.00020	0.000070	mg/L		03/07/16 10:02	03/10/16 13:58	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32000**		83	57	mg/L			03/08/16 18:14	1
Chloride	**4700**		200	60	mg/L			03/07/16 17:41	100
Fluoride	**0.074**	I	0.10	0.032	mg/L			03/16/16 18:24	1
Sulfate	**460**		75	21	mg/L			03/14/16 13:51	15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**16.3**		0.627	1.59	1.00	0.0872	pCi/L	03/07/16 15:25	03/29/16 06:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*62.4*		*40 - 110*	*03/07/16 15:25*	*03/29/16 06:41*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**20.2**		1.14	2.18	1.00	0.534	pCi/L	03/08/16 10:30	03/22/16 17:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*62.4*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:32*	*1*
Y Carrier	*83.4*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:32*	*1*

Client Sample ID: MW-206

Date Collected: 03/02/16 18:17
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-8

Matrix: Water

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		1.30	2.70	5.00	0.534	pCi/L		04/11/16 13:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.62				SU			03/02/16 18:17	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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-200

Lab Sample ID: 400-118307-1

Date Collected: 03/02/16 13:35

Matrix: Water

Date Received: 03/02/16 16:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 20:06	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	296980	03/10/16 12:30	RJB	TAL PEN
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		40	296555	03/07/16 17:14	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297502	03/15/16 16:37	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	296291	03/04/16 16:45	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239388	03/07/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242773	03/29/16 12:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239468	03/08/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241800	03/23/16 08:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/02/16 13:35	BWS	TAL PEN

Client Sample ID: MW-201

Lab Sample ID: 400-118307-2

Date Collected: 03/02/16 15:17

Matrix: Water

Date Received: 03/02/16 16:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296882	03/09/16 20:10	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		296075	03/04/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	296980	03/10/16 12:35	RJB	TAL PEN
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		40	296555	03/07/16 17:16	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297502	03/15/16 16:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	296291	03/04/16 16:48	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239388	03/07/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242773	03/29/16 12:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239468	03/08/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241800	03/23/16 08:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/02/16 15:17	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204

Date Collected: 03/02/16 13:55
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:23	RJB	TAL PEN
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	296555	03/07/16 16:37	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297502	03/15/16 16:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	296291	03/04/16 16:49	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239388	03/07/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242773	03/29/16 12:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239468	03/08/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241800	03/23/16 08:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/02/16 13:55	BWS	TAL PEN

Client Sample ID: MW-205

Date Collected: 03/02/16 15:25
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:47	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	297630	03/16/16 17:11	RJB	TAL PEN
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 15:47	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297502	03/15/16 16:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296291	03/04/16 16:33	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239388	03/07/16 13:43	MRB	TAL SL
Total/NA	Analysis	9315		1	242773	03/29/16 12:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239468	03/08/16 10:28	CMC	TAL SL
Total/NA	Analysis	9320		1	241800	03/23/16 08:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296178	03/02/16 15:25	BWS	TAL PEN

Client Sample ID: DUP-03

Date Collected: 03/02/16 12:55
Date Received: 03/02/16 16:46

Lab Sample ID: 400-118307-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:56	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL3		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL3	100	297630	03/16/16 17:16	RJB	TAL PEN
Total/NA	Prep	7470A			295975	03/03/16 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296492	03/07/16 12:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	296555	03/07/16 16:37	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	296291	03/04/16 16:49	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239412	03/07/16 15:25	MRB	TAL SL
Total/NA	Analysis	9315		1	242768	03/29/16 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239469	03/08/16 10:30	CMC	TAL SL
Total/NA	Analysis	9320		1	241442	03/22/16 17:31	SMP	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: MW-202

Date Collected: 03/02/16 16:47
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 17:05	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	297630	03/16/16 17:21	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 13:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 15:47	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296950	03/10/16 11:32	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239412	03/07/16 15:25	MRB	TAL SL
Total/NA	Analysis	9315		1	242768	03/29/16 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239469	03/08/16 10:30	CMC	TAL SL
Total/NA	Analysis	9320		1	241442	03/22/16 17:31	SMP	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/02/16 16:47	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203

Date Collected: 03/03/16 10:10
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 17:15	RJB	TAL PEN
Total Recoverable	Prep	3005A	RADL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	RADL	25	297630	03/16/16 17:26	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 13:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296709	03/08/16 19:01	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 15:49	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	298797	03/24/16 13:16	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			239412	03/07/16 15:25	MRB	TAL SL
Total/NA	Analysis	9315		1	242768	03/29/16 06:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239469	03/08/16 10:30	CMC	TAL SL
Total/NA	Analysis	9320		1	241442	03/22/16 17:31	SMP	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 10:10	BWS	TAL PEN

Client Sample ID: MW-206

Date Collected: 03/02/16 18:17
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118307-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 17:24	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	296980	03/10/16 17:29	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL3		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL3	500	297630	03/16/16 17:30	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 13:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296697	03/08/16 18:14	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	296555	03/07/16 17:41	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:24	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	297322	03/14/16 13:51	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239412	03/07/16 15:25	MRB	TAL SL
Total/NA	Analysis	9315		1	242768	03/29/16 06:41	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239469	03/08/16 10:30	CMC	TAL SL
Total/NA	Analysis	9320		1	241442	03/22/16 17:32	SMP	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/02/16 18:17	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Laboratory References:

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

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

Metals

Prep Batch: 295975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-1	MW-200	Total/NA	Water	7470A	
400-118307-1 MS	MW-200	Total/NA	Water	7470A	
400-118307-1 MSD	MW-200	Total/NA	Water	7470A	
400-118307-2	MW-201	Total/NA	Water	7470A	
400-118307-3	MW-204	Total/NA	Water	7470A	
400-118307-4	MW-205	Total/NA	Water	7470A	
400-118307-5	DUP-03	Total/NA	Water	7470A	
LCS 400-295975/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-295975/12-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 296075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-C-1-C MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-118187-C-1-D MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-118307-1 - DL2	MW-200	Total Recoverable	Water	3005A	
400-118307-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-118307-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-118307-2 - DL2	MW-201	Total Recoverable	Water	3005A	
LCS 400-296075/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-296075/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 296412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-6	MW-202	Total/NA	Water	7470A	
400-118307-6 MS	MW-202	Total/NA	Water	7470A	
400-118307-6 MSD	MW-202	Total/NA	Water	7470A	
400-118307-7	MW-203	Total/NA	Water	7470A	
400-118307-8	MW-206	Total/NA	Water	7470A	
LCS 400-296412/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-296412/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 296445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-3 - DL	MW-204	Total Recoverable	Water	3005A	
400-118307-4 - DL	MW-205	Total Recoverable	Water	3005A	
400-118307-4 - RADL	MW-205	Total Recoverable	Water	3005A	
400-118307-5 - DL3	DUP-03	Total Recoverable	Water	3005A	
400-118307-5 - DL	DUP-03	Total Recoverable	Water	3005A	
400-118307-6 - DL	MW-202	Total Recoverable	Water	3005A	
400-118307-6 - RADL	MW-202	Total Recoverable	Water	3005A	
400-118307-7 - DL	MW-203	Total Recoverable	Water	3005A	
400-118307-7 - RADL	MW-203	Total Recoverable	Water	3005A	
400-118307-8 - DL	MW-206	Total Recoverable	Water	3005A	
400-118307-8 - DL3	MW-206	Total Recoverable	Water	3005A	
400-118307-8 - DL2	MW-206	Total Recoverable	Water	3005A	
400-118415-B-10-C MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-118415-B-10-D MSD ^2	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-296445/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-296445/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Analysis Batch: 296492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-1	MW-200	Total/NA	Water	7470A	295975
400-118307-1 MS	MW-200	Total/NA	Water	7470A	295975
400-118307-1 MSD	MW-200	Total/NA	Water	7470A	295975
400-118307-2	MW-201	Total/NA	Water	7470A	295975
400-118307-3	MW-204	Total/NA	Water	7470A	295975
400-118307-4	MW-205	Total/NA	Water	7470A	295975
400-118307-5	DUP-03	Total/NA	Water	7470A	295975
LCS 400-295975/13-A	Lab Control Sample	Total/NA	Water	7470A	295975
MB 400-295975/12-A	Method Blank	Total/NA	Water	7470A	295975

Analysis Batch: 296882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118187-C-1-C MS ^25	Matrix Spike	Total Recoverable	Water	6020	296075
400-118187-C-1-D MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	296075
400-118307-1 - DL	MW-200	Total Recoverable	Water	6020	296075
400-118307-2 - DL	MW-201	Total Recoverable	Water	6020	296075
LCS 400-296075/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	296075
MB 400-296075/1-A ^5	Method Blank	Total Recoverable	Water	6020	296075
MRL 400-296882/22	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 296974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-6	MW-202	Total/NA	Water	7470A	296412
400-118307-6 MS	MW-202	Total/NA	Water	7470A	296412
400-118307-6 MSD	MW-202	Total/NA	Water	7470A	296412
400-118307-7	MW-203	Total/NA	Water	7470A	296412
400-118307-8	MW-206	Total/NA	Water	7470A	296412
LCS 400-296412/15-A	Lab Control Sample	Total/NA	Water	7470A	296412
MB 400-296412/14-A	Method Blank	Total/NA	Water	7470A	296412

Analysis Batch: 296980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-1 - DL2	MW-200	Total Recoverable	Water	6020	296075
400-118307-2 - DL2	MW-201	Total Recoverable	Water	6020	296075
400-118307-3 - DL	MW-204	Total Recoverable	Water	6020	296445
400-118307-4 - DL	MW-205	Total Recoverable	Water	6020	296445
400-118307-5 - DL	DUP-03	Total Recoverable	Water	6020	296445
400-118307-6 - DL	MW-202	Total Recoverable	Water	6020	296445
400-118307-7 - DL	MW-203	Total Recoverable	Water	6020	296445
400-118307-8 - DL	MW-206	Total Recoverable	Water	6020	296445
400-118307-8 - DL2	MW-206	Total Recoverable	Water	6020	296445
400-118415-B-10-C MS ^25	Matrix Spike	Total Recoverable	Water	6020	296445
400-118415-B-10-D MSD ^2	Matrix Spike Duplicate	Total Recoverable	Water	6020	296445
LCS 400-296445/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	296445
MB 400-296445/1-A ^5	Method Blank	Total Recoverable	Water	6020	296445
MRL 400-296980/22	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 297630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-4 - RADL	MW-205	Total Recoverable	Water	6020	296445
400-118307-5 - DL3	DUP-03	Total Recoverable	Water	6020	296445

Metals (Continued)

Analysis Batch: 297630 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-6 - RADL	MW-202	Total Recoverable	Water	6020	296445
400-118307-7 - RADL	MW-203	Total Recoverable	Water	6020	296445
400-118307-8 - DL3	MW-206	Total Recoverable	Water	6020	296445
MRL 400-297630/23	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 296291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-118307-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-118307-3	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-118307-4	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-118307-5	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-118324-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-118324-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-296291/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-296291/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MRL 400-296291/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 296555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-118307-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-118307-3	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-118307-4	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-118307-4 MS	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-118307-4 MSD	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-118307-5	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-118307-6	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-118307-7	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-118307-8	MW-206	Total/NA	Water	SM 4500 Cl- E	
LCS 400-296555/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-296555/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MRL 400-296555/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 296697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118300-B-3 DU	Duplicate	Total/NA	Water	SM 2540C	
400-118307-1	MW-200	Total/NA	Water	SM 2540C	
400-118307-2	MW-201	Total/NA	Water	SM 2540C	
400-118307-3	MW-204	Total/NA	Water	SM 2540C	
400-118307-4	MW-205	Total/NA	Water	SM 2540C	
400-118307-5	DUP-03	Total/NA	Water	SM 2540C	
400-118307-6	MW-202	Total/NA	Water	SM 2540C	
400-118307-8	MW-206	Total/NA	Water	SM 2540C	
400-118316-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 400-296697/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-296697/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 296709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-7	MW-203	Total/NA	Water	SM 2540C	
400-118307-7 DU	MW-203	Total/NA	Water	SM 2540C	
LCS 400-296709/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-296709/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 296950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-6	MW-202	Total/NA	Water	SM 4500 SO4 E	
LCS 400-296950/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-296950/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MRL 400-296950/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 297322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-8	MW-206	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 297502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118188-B-12 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-118188-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-118307-1	MW-200	Total/NA	Water	SM 4500 F C	
400-118307-2	MW-201	Total/NA	Water	SM 4500 F C	
400-118307-3	MW-204	Total/NA	Water	SM 4500 F C	
400-118307-4	MW-205	Total/NA	Water	SM 4500 F C	
400-118657-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-297502/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297502/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 297707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-5	DUP-03	Total/NA	Water	SM 4500 F C	
400-118307-6	MW-202	Total/NA	Water	SM 4500 F C	
400-118307-6 MS	MW-202	Total/NA	Water	SM 4500 F C	
400-118307-6 MSD	MW-202	Total/NA	Water	SM 4500 F C	
400-118307-7	MW-203	Total/NA	Water	SM 4500 F C	
400-118307-8	MW-206	Total/NA	Water	SM 4500 F C	
400-118415-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-297707/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297707/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 298797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-7	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-118750-A-1 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-118750-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-118750-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-298797/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-298797/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Rad

Prep Batch: 239388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-75413-B-11-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
310-75413-C-11-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
400-118307-1	MW-200	Total/NA	Water	PrecSep-21	
400-118307-2	MW-201	Total/NA	Water	PrecSep-21	
400-118307-3	MW-204	Total/NA	Water	PrecSep-21	
400-118307-4	MW-205	Total/NA	Water	PrecSep-21	
LCS 160-239388/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-239388/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-5	DUP-03	Total/NA	Water	PrecSep-21	
400-118307-6	MW-202	Total/NA	Water	PrecSep-21	
400-118307-7	MW-203	Total/NA	Water	PrecSep-21	
400-118307-8	MW-206	Total/NA	Water	PrecSep-21	
500-108286-C-3-B DU	Duplicate	Total/NA	Water	PrecSep-21	
LCS 160-239412/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-239412/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-75413-B-11-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
310-75413-C-11-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	
400-118307-1	MW-200	Total/NA	Water	PrecSep_0	
400-118307-2	MW-201	Total/NA	Water	PrecSep_0	
400-118307-3	MW-204	Total/NA	Water	PrecSep_0	
400-118307-4	MW-205	Total/NA	Water	PrecSep_0	
LCS 160-239468/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-239468/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 239469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-5	DUP-03	Total/NA	Water	PrecSep_0	
400-118307-6	MW-202	Total/NA	Water	PrecSep_0	
400-118307-7	MW-203	Total/NA	Water	PrecSep_0	
400-118307-8	MW-206	Total/NA	Water	PrecSep_0	
500-108286-C-3-D DU	Duplicate	Total/NA	Water	PrecSep_0	
LCS 160-239469/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-239469/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 296178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-1	MW-200	Total/NA	Water	Field Sampling	
400-118307-2	MW-201	Total/NA	Water	Field Sampling	
400-118307-3	MW-204	Total/NA	Water	Field Sampling	
400-118307-4	MW-205	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 296793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-6	MW-202	Total/NA	Water	Field Sampling	
400-118307-7	MW-203	Total/NA	Water	Field Sampling	
400-118307-8	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-296882/22
Matrix: Water
Analysis Batch: 296882

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.520	I	ug/L		104	
Arsenic	0.250	0.33	U	ug/L		108	
Barium	0.500	0.469	I	ug/L		94	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		94	
Cadmium	0.250	0.277	I	ug/L		111	
Calcium	50.0	130	U	ug/L		111	
Chromium	0.500	0.517	I	ug/L		103	
Cobalt	0.500	0.478	I	ug/L		96	
Lead	0.250	0.33	U	ug/L		96	
Lithium	0.500	1.6	U	ug/L		136	
Molybdenum	0.500	0.506	I	ug/L		101	
Selenium	0.250	0.244	I	ug/L		98	
Thallium	0.100	0.101	I	ug/L		101	

Lab Sample ID: MRL 400-296980/22
Matrix: Water
Analysis Batch: 296980

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.558	I	ug/L		112	
Arsenic	0.250	0.33	U	ug/L		102	
Barium	0.500	0.45	U	ug/L		86	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		93	
Cadmium	0.250	0.279	I	ug/L		112	
Calcium	50.0	130	U	ug/L		104	
Chromium	0.500	0.476	I	ug/L		95	
Cobalt	0.500	0.464	I	ug/L		93	
Lead	0.250	0.33	U	ug/L		86	
Lithium	0.500	1.6	U	ug/L		55	
Molybdenum	0.500	0.444	I	ug/L		89	
Selenium	0.250	0.254	I	ug/L		102	
Thallium	0.100	0.0950	I	ug/L		95	

Lab Sample ID: MRL 400-297630/23
Matrix: Water
Analysis Batch: 297630

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.00	18	U	ug/L		100	

Lab Sample ID: MB 400-296075/1-A ^5
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/04/16 10:50	03/09/16 17:40	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:40	5

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

Lab Sample ID: MB 400-296075/1-A ^5
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.00045	U	0.0025	0.00045	mg/L		03/04/16 10:50	03/09/16 17:40	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/04/16 10:50	03/09/16 17:40	5
Boron	0.018	U	0.050	0.018	mg/L		03/04/16 10:50	03/09/16 17:40	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/04/16 10:50	03/09/16 17:40	5
Calcium	0.13	U	0.25	0.13	mg/L		03/04/16 10:50	03/09/16 17:40	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/04/16 10:50	03/09/16 17:40	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/04/16 10:50	03/09/16 17:40	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/04/16 10:50	03/09/16 17:40	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/04/16 10:50	03/09/16 17:40	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/04/16 10:50	03/09/16 17:40	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/04/16 10:50	03/09/16 17:40	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/04/16 10:50	03/09/16 17:40	5

Lab Sample ID: LCS 400-296075/2-A ^1
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0517		mg/L		103	80 - 120
Arsenic	0.0500	0.0523		mg/L		105	80 - 120
Barium	0.0500	0.0466		mg/L		93	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0948		mg/L		95	80 - 120
Cadmium	0.0500	0.0512		mg/L		102	80 - 120
Calcium	5.00	5.11		mg/L		102	80 - 120
Chromium	0.0500	0.0492		mg/L		98	80 - 120
Cobalt	0.0500	0.0480		mg/L		96	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0517		mg/L		103	80 - 120
Molybdenum	0.0500	0.0474		mg/L		95	80 - 120
Selenium	0.0500	0.0513		mg/L		103	80 - 120
Thallium	0.0100	0.00961		mg/L		96	80 - 120

Lab Sample ID: 400-118187-C-1-C MS ^25
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0043	U	0.0500	0.0583		mg/L		117	75 - 125
Arsenic	0.0017	U	0.0500	0.0529		mg/L		106	75 - 125
Barium	0.012	I	0.0500	0.0557		mg/L		88	75 - 125
Beryllium	0.00030	U	0.0500	0.0477		mg/L		95	75 - 125
Boron	0.090	U	0.100	0.163	I J3	mg/L		163	75 - 125
Cadmium	0.00043	U	0.0500	0.0498		mg/L		100	75 - 125
Calcium	1.2	I	5.00	6.31		mg/L		103	75 - 125
Chromium	0.0019	U	0.0500	0.0492		mg/L		98	75 - 125
Cobalt	0.00050	U	0.0500	0.0490		mg/L		98	75 - 125
Lead	0.0017	U	0.0500	0.0465		mg/L		93	75 - 125
Lithium	0.0080	U	0.0500	0.0661	J3	mg/L		132	75 - 125

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

Lab Sample ID: 400-118187-C-1-C MS ^25
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.0010	U	0.0500	0.0483	I	mg/L		97	75 - 125
Selenium	0.0012	U	0.0500	0.0529		mg/L		106	75 - 125
Thallium	0.00013	U	0.0100	0.00955		mg/L		96	75 - 125

Lab Sample ID: 400-118187-C-1-D MSD ^25
Matrix: Water
Analysis Batch: 296882

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 296075

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0043	U	0.0500	0.0539		mg/L		108	75 - 125	8	20
Arsenic	0.0017	U	0.0500	0.0518		mg/L		104	75 - 125	2	20
Barium	0.012	I	0.0500	0.0591		mg/L		95	75 - 125	6	20
Beryllium	0.00030	U	0.0500	0.0483		mg/L		97	75 - 125	1	20
Boron	0.090	U	0.100	0.149	I J3	mg/L		149	75 - 125	9	20
Cadmium	0.00043	U	0.0500	0.0540		mg/L		108	75 - 125	8	20
Calcium	1.2	I	5.00	6.11		mg/L		99	75 - 125	3	20
Chromium	0.0019	U	0.0500	0.0506		mg/L		101	75 - 125	3	20
Cobalt	0.00050	U	0.0500	0.0485		mg/L		97	75 - 125	1	20
Lead	0.0017	U	0.0500	0.0452		mg/L		90	75 - 125	3	20
Lithium	0.0080	U	0.0500	0.0729	J3	mg/L		146	75 - 125	10	20
Molybdenum	0.0010	U	0.0500	0.0452	I	mg/L		90	75 - 125	7	20
Selenium	0.0012	U	0.0500	0.0536		mg/L		107	75 - 125	1	20
Thallium	0.00013	U	0.0100	0.00975		mg/L		98	75 - 125	2	20

Lab Sample ID: MB 400-296445/1-A ^5
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/07/16 11:43	03/10/16 14:49	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 14:49	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/07/16 11:43	03/10/16 14:49	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/07/16 11:43	03/10/16 14:49	5
Boron	0.018	U	0.050	0.018	mg/L		03/07/16 11:43	03/10/16 14:49	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/07/16 11:43	03/10/16 14:49	5
Calcium	0.13	U	0.25	0.13	mg/L		03/07/16 11:43	03/10/16 14:49	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/07/16 11:43	03/10/16 14:49	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/07/16 11:43	03/10/16 14:49	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 14:49	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/07/16 11:43	03/10/16 14:49	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/07/16 11:43	03/10/16 14:49	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/07/16 11:43	03/10/16 14:49	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/07/16 11:43	03/10/16 14:49	5

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

Lab Sample ID: LCS 400-296445/2-A ^1
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0507		mg/L		101	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0455		mg/L		91	80 - 120
Beryllium	0.0500	0.0474		mg/L		95	80 - 120
Boron	0.100	0.0854		mg/L		85	80 - 120
Cadmium	0.0500	0.0475		mg/L		95	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0466		mg/L		93	80 - 120
Cobalt	0.0500	0.0454		mg/L		91	80 - 120
Lead	0.0500	0.0465		mg/L		93	80 - 120
Lithium	0.0500	0.0499		mg/L		100	80 - 120
Molybdenum	0.0500	0.0461		mg/L		92	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.00952		mg/L		95	80 - 120

Lab Sample ID: 400-118415-B-10-C MS ^25
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0043	U	0.0500	0.0601		mg/L		120	75 - 125
Arsenic	0.0017	U	0.0500	0.0565		mg/L		113	75 - 125
Barium	0.026		0.0500	0.0749		mg/L		99	75 - 125
Beryllium	0.00030	U	0.0500	0.0488		mg/L		98	75 - 125
Boron	2.9		0.100	3.24	J3	mg/L		344	75 - 125
Cadmium	0.00043	U	0.0500	0.0509		mg/L		102	75 - 125
Calcium	55		5.00	61.6	J3	mg/L		136	75 - 125
Chromium	0.0019	U	0.0500	0.0484		mg/L		97	75 - 125
Cobalt	0.00055	I	0.0500	0.0467		mg/L		92	75 - 125
Lead	0.0017	U	0.0500	0.0450		mg/L		90	75 - 125
Lithium	0.034		0.0500	0.101	J3	mg/L		133	75 - 125
Molybdenum	0.98		0.0500	1.05	J3	mg/L		140	75 - 125
Selenium	0.0081		0.0500	0.0603		mg/L		105	75 - 125
Thallium	0.00020	I	0.0100	0.0101		mg/L		99	75 - 125

Lab Sample ID: 400-118415-B-10-D MSD ^25
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0043	U	0.0500	0.0558		mg/L		112	75 - 125	7	20
Arsenic	0.0017	U	0.0500	0.0528		mg/L		106	75 - 125	7	20
Barium	0.026		0.0500	0.0713		mg/L		91	75 - 125	5	20
Beryllium	0.00030	U	0.0500	0.0480		mg/L		96	75 - 125	2	20
Boron	2.9		0.100	3.30	J3	mg/L		405	75 - 125	2	20
Cadmium	0.00043	U	0.0500	0.0484		mg/L		97	75 - 125	5	20
Calcium	55		5.00	61.1	J3	mg/L		127	75 - 125	1	20
Chromium	0.0019	U	0.0500	0.0472		mg/L		94	75 - 125	2	20

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

Lab Sample ID: 400-118415-B-10-D MSD ^25
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.00055	I	0.0500	0.0486		mg/L		96	75 - 125	4	20
Lead	0.0017	U	0.0500	0.0443		mg/L		89	75 - 125	2	20
Lithium	0.034		0.0500	0.0986	J3	mg/L		129	75 - 125	2	20
Molybdenum	0.98		0.0500	1.03		mg/L		86	75 - 125	3	20
Selenium	0.0081		0.0500	0.0602		mg/L		104	75 - 125	0	20
Thallium	0.00020	I	0.0100	0.00980		mg/L		96	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-295975/12-A
Matrix: Water
Analysis Batch: 296492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295975

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/03/16 09:19	03/07/16 12:09	1

Lab Sample ID: LCS 400-295975/13-A
Matrix: Water
Analysis Batch: 296492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00103		mg/L		102	80 - 120

Lab Sample ID: 400-118307-1 MS
Matrix: Water
Analysis Batch: 296492

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 295975

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0027		0.00201	0.00435		mg/L		81	80 - 120

Lab Sample ID: 400-118307-1 MSD
Matrix: Water
Analysis Batch: 296492

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 295975

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0027		0.00201	0.00414	J3	mg/L		71	80 - 120	5	20

Lab Sample ID: MB 400-296412/14-A
Matrix: Water
Analysis Batch: 296974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 296412

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/07/16 10:01	03/10/16 13:23	1

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

Lab Sample ID: LCS 400-296412/15-A
Matrix: Water
Analysis Batch: 296974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 296412

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.00108		mg/L		107	80 - 120		

Lab Sample ID: 400-118307-6 MS
Matrix: Water
Analysis Batch: 296974

Client Sample ID: MW-202
Prep Type: Total/NA
Prep Batch: 296412

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.000070	U	0.00201	0.00213		mg/L		106	80 - 120		

Lab Sample ID: 400-118307-6 MSD
Matrix: Water
Analysis Batch: 296974

Client Sample ID: MW-202
Prep Type: Total/NA
Prep Batch: 296412

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	0.00217		mg/L		108	80 - 120	2	20

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

Lab Sample ID: MB 400-296697/1
Matrix: Water
Analysis Batch: 296697

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			03/08/16 18:14	1

Lab Sample ID: LCS 400-296697/2
Matrix: Water
Analysis Batch: 296697

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	276		mg/L		94	78 - 122		

Lab Sample ID: 400-118300-B-3 DU
Matrix: Water
Analysis Batch: 296697

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	4.0	I		4.00	I	mg/L				0	5

Lab Sample ID: 400-118316-A-4 DU
Matrix: Water
Analysis Batch: 296697

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	82			82.0		mg/L				0	5

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

Lab Sample ID: MB 400-296709/1
Matrix: Water
Analysis Batch: 296709

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			03/08/16 19:01	1

Lab Sample ID: LCS 400-296709/2
Matrix: Water
Analysis Batch: 296709

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	286		mg/L		98	78 - 122

Lab Sample ID: 400-118307-7 DU
Matrix: Water
Analysis Batch: 296709

Client Sample ID: MW-203
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	190		192		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-296555/6
Matrix: Water
Analysis Batch: 296555

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/07/16 14:32	1

Lab Sample ID: LCS 400-296555/7
Matrix: Water
Analysis Batch: 296555

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	30.4		mg/L		101	90 - 110

Lab Sample ID: MRL 400-296555/3
Matrix: Water
Analysis Batch: 296555

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	1.61	I	mg/L		81	50 - 150

Lab Sample ID: 400-118307-4 MS
Matrix: Water
Analysis Batch: 296555

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.2		10.0	15.5		mg/L		93	73 - 120

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

Lab Sample ID: 400-118307-4 MSD
Matrix: Water
Analysis Batch: 296555

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.2		10.0	15.5		mg/L		93	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-297502/3
Matrix: Water
Analysis Batch: 297502

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			03/15/16 15:42	1

Lab Sample ID: LCS 400-297502/4
Matrix: Water
Analysis Batch: 297502

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	4.28		mg/L		107	90 - 110

Lab Sample ID: 400-118188-B-12 MS
Matrix: Water
Analysis Batch: 297502

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	0.039	I	1.00	1.06		mg/L		102	75 - 125

Lab Sample ID: 400-118188-B-12 MSD
Matrix: Water
Analysis Batch: 297502

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	0.039	I	1.00	1.04		mg/L		100	75 - 125	2	4

Lab Sample ID: 400-118657-A-3 DU
Matrix: Water
Analysis Batch: 297502

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.033	I	0.0330	I	mg/L		0	4

Lab Sample ID: MB 400-297707/3
Matrix: Water
Analysis Batch: 297707

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			03/16/16 17:43	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-297707/4
Matrix: Water
Analysis Batch: 297707

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	4.28		mg/L		107	90 - 110		

Lab Sample ID: 400-118307-6 MS
Matrix: Water
Analysis Batch: 297707

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.042	I	1.00	1.04		mg/L		100	75 - 125		

Lab Sample ID: 400-118307-6 MSD
Matrix: Water
Analysis Batch: 297707

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.042	I	1.00	1.04		mg/L		100	75 - 125	0	4

Lab Sample ID: 400-118415-A-5 DU
Matrix: Water
Analysis Batch: 297707

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.11			0.112		mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-296291/6
Matrix: Water
Analysis Batch: 296291

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			03/04/16 15:45	1

Lab Sample ID: LCS 400-296291/7
Matrix: Water
Analysis Batch: 296291

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	14.8		mg/L		99	90 - 110		

Lab Sample ID: MRL 400-296291/3
Matrix: Water
Analysis Batch: 296291

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	4.84	I	mg/L		97	50 - 150		

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

Lab Sample ID: 400-118324-A-4 MS
Matrix: Water
Analysis Batch: 296291

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	1.4	U	10.0	14.1	J3	mg/L		141	77 - 128

Lab Sample ID: 400-118324-A-4 MSD
Matrix: Water
Analysis Batch: 296291

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	1.4	U	10.0	14.2	J3	mg/L		142	77 - 128	0	5

Lab Sample ID: MB 400-296950/6
Matrix: Water
Analysis Batch: 296950

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			03/10/16 09:04	1

Lab Sample ID: LCS 400-296950/7
Matrix: Water
Analysis Batch: 296950

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	13.8		mg/L		92	90 - 110

Lab Sample ID: MRL 400-296950/3
Matrix: Water
Analysis Batch: 296950

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	4.84	I	mg/L		97	50 - 150

Lab Sample ID: MB 400-298797/6
Matrix: Water
Analysis Batch: 298797

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			03/24/16 12:06	1

Lab Sample ID: LCS 400-298797/7
Matrix: Water
Analysis Batch: 298797

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	14.5		mg/L		96	90 - 110

Lab Sample ID: 400-118750-A-3 MS
Matrix: Water
Analysis Batch: 298797

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	1.4	U	10.0	11.6		mg/L		116	77 - 128

Lab Sample ID: 400-118750-A-3 MSD
Matrix: Water
Analysis Batch: 298797

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	1.4	U	10.0	11.7		mg/L		117	77 - 128	1	5

Lab Sample ID: 400-118750-A-1 DU
Matrix: Water
Analysis Batch: 298797

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	1.4	U	1.4	U	mg/L				NC	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-239388/1-A
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239388

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02357	U	0.0443	0.0443	1.00	0.0777	pCi/L	03/07/16 13:43	03/29/16 08:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/07/16 13:43*	*03/29/16 08:39*	*1*

Lab Sample ID: LCS 160-239388/2-A
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239388

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.03		1.17	1.00	0.0831	pCi/L	108	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*

Lab Sample ID: 310-75413-B-11-B MSD
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239388

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	0.117		11.4	13.24		1.29	1.00	0.0625	pCi/L	115	75 - 138	0.46	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*92.9*		*40 - 110*

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

Lab Sample ID: 310-75413-C-11-A MS
Matrix: Water
Analysis Batch: 242773

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239388

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.117		11.5	12.11		1.19	1.00	0.0770	pCi/L	104	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*

Lab Sample ID: MB 160-239412/1-A
Matrix: Water
Analysis Batch: 242721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239412

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.009150	U	0.0336	0.0337	1.00	0.0640	pCi/L	03/07/16 15:25	03/29/16 06:33	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/07/16 15:25*	*03/29/16 06:33*	*1*

Lab Sample ID: LCS 160-239412/2-A
Matrix: Water
Analysis Batch: 242721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239412

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.99		1.26	1.00	0.0713	pCi/L	116	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*98.6*		*40 - 110*

Lab Sample ID: 500-108286-C-3-B DU
Matrix: Water
Analysis Batch: 242768

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 239412

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.0562	U		0.08813	U	0.0767	1.00	0.120	pCi/L			0.25	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*94.3*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-239468/1-A
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239468

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.136		0.357	0.372	1.00	0.487	pCi/L	03/08/16 10:28	03/23/16 08:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:30*	*1*
Y Carrier	*72.1*		*40 - 110*	*03/08/16 10:28*	*03/23/16 08:30*	*1*

Lab Sample ID: LCS 160-239468/2-A
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239468

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.26	9.559		1.08	1.00	0.361	pCi/L	103	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Lab Sample ID: 310-75413-B-11-D MSD
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 239468

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	0.242	U	9.44	10.81		1.36	1.00	0.699	pCi/L	115	45 - 150	0.23	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*92.9*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

Lab Sample ID: 310-75413-C-11-B MS
Matrix: Water
Analysis Batch: 241797

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 239468

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.242	U	9.53	10.23		1.17	1.00	0.413	pCi/L	107	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*
Y Carrier	*81.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-239469/1-A
Matrix: Water
Analysis Batch: 241442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239469

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1793	U	0.192	0.193	1.00	0.314	pCi/L	03/08/16 10:30	03/22/16 17:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:30*	*1*
Y Carrier	*81.5*		*40 - 110*	*03/08/16 10:30*	*03/22/16 17:30*	*1*

Lab Sample ID: LCS 160-239469/2-A
Matrix: Water
Analysis Batch: 241442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239469

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.26	8.404		0.979	1.00	0.345	pCi/L	91	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*98.6*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Lab Sample ID: 500-108286-C-3-D DU
Matrix: Water
Analysis Batch: 241439

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 239469

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.261	U		0.2753	U	0.280	1.00	0.454	pCi/L			0.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*94.3*		*40 - 110*
Y Carrier	*84.1*		*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: Shane Bragg	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53124-23630.1
Client Contact: Carl Eldred	Phone: 850-336-0142	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32301				
Phone:	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	SSOW#:			

Analysis Requested

400-118307 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 - Na2S2SO3
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	SM4500_Cl_E, SM4500_SO4_E, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
MW-200	3-2-16	1335	G	Water	N		X	X	X	X		PH: 5.14
MW-201	3-2-16	1517	G	Water	N		X	X	X	X		PH: 5.57
~~MW-202~~				Water								
~~MW-203~~				Water								
MW-204	3-2-16	1355	G	Water	N		X	X	X	X		PH: 5.05
MW-205	3-2-16	1525	G	Water			X	X	X	X		PH, 5.39
~~MW-206~~				Water								
Dup-03	3-2-16	1255	G	Water	N		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: 11 3/2

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: 1645

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3-2-16 1645	RDNEMV	[signature]	3/2/16 ~~1645~~	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: C2 (11.5 °C) IR6 C1 (9.3°C) IR6 (6.9°C) IR6 C3

4/11/2016

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

Chain of Custody Record

118307

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Shane Boagg	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53124-23630.1
Client Contact: Carl Eldred	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32301				
Phone:	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	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 - Na2S2SO3
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	SM4500_Cl_E, SM4500_SO4_E, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	D		X	
~~MW-200~~ 53	~~3-2-16~~	~~1335~~		Water								
~~MW-201~~	~~3-2-16~~	~~1517~~		Water								
MW-202	3-2-16	1647	G	Water	N		X	X	X	X		PH: 5.24
MW-203	3-3-16	1010	G	Water	N		X	X	X	X		PH: 4.88
~~MW-204~~				Water								
~~MW-205~~				Water								
MW-206	3-2-16	1817	G	Water	N		X	X	X	X		PH: 4.62

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]	3-4-16 0900	RDH ENV.	DC Ahers	3-4-16 0900	TA

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.5°C IR-5

4/11/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-118307-1
SDG Number: Gypsum Storage Area

Login Number: 118307
List Number: 1
Creator: Crawford, Lauren E

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	11.5°C, 9.3°C, 6.9°C IR-6 1.5°C IR-5
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	

Certification Summary

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	05-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-16
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	05-31-16
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16
Nevada	State Program	9	MO000542016-1	07-31-16
New Jersey	NELAP	2	MO002	06-30-16
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-16

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-118307-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16
Texas	NELAP	6	T104704193-15-9	07-31-16
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-118415-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/11/2016 3:02:30 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 25
Chronicle 26
QC Association 31
QC Sample Results 36
Chain of Custody 47
Receipt Checklists 49
Certification Summary 50

Job ID: 400-118415-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-118415-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-239934: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-118415-1) and MW-303 (400-118415-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-239935: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-304 (400-118415-3), MW-305 (400-118415-4), MW-308 (400-118415-5), FB-02 (400-118415-6), FB-03 (400-118415-7), EB-02 (400-118415-8), EB-03 (400-118415-9) and DUP-04 (400-118415-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead. The following sample was prepared at a reduced aliquot due to sediment and discoloration: MW-308 (400-118415-5).

Method(s) PrecSep_0: Radium-228 Prep Batch 160-243081: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-118415-1) and MW-303 (400-118415-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead. Samples 490-98425-1, 400-118415-1, 400-118415-2, and 440-140776-1 were prepared at a reduced aliquot due to limited sample volume available.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-243081: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchet was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-300 (400-118415-1) and MW-303 (400-118415-2)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-239803: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-118415-1), MW-303 (400-118415-2), MW-304 (400-118415-3), MW-305 (400-118415-4), MW-308 (400-118415-5), FB-02 (400-118415-6), FB-03 (400-118415-7), EB-02 (400-118415-8), EB-03 (400-118415-9) and DUP-04 (400-118415-10). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead. Sample 400-118415-5 was prepared at a reduced aliquot due to limited sample available.

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 296445 and analytical batch 296980 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 due to the nature of the sample matrix: MW-300 (400-118415-1), MW-303 (400-118415-2), MW-304 (400-118415-3), MW-305 (400-118415-4), MW-308 (400-118415-5) and DUP-04 (400-118415-10). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 296950 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 298941 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.

Detection Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-118415-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.010	I	0.013	0.0023	mg/L	25		6020	Total Recoverable
Boron - DL	0.11	I	0.25	0.090	mg/L	25		6020	Total Recoverable
Calcium - DL	1.0	I	1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.041	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	5.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-118415-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0018	I	0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.024		0.013	0.0023	mg/L	25		6020	Total Recoverable
Boron - DL	3.2		0.25	0.090	mg/L	25		6020	Total Recoverable
Calcium - DL	57		1.3	0.63	mg/L	25		6020	Total Recoverable
Lithium - DL	0.037		0.013	0.0080	mg/L	25		6020	Total Recoverable
Molybdenum - DL	0.99		0.075	0.0010	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0080		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00023	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	420		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	36		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	180		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.16				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-118415-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0090		0.0063	0.0017	mg/L	25		6020	Total Recoverable
Barium - DL	0.045		0.013	0.0023	mg/L	25		6020	Total Recoverable
Boron - DL	1.6		0.25	0.090	mg/L	25		6020	Total Recoverable
Calcium - DL	160		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.19		0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0041	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00015	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Mercury	0.000086	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1100		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-118415-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	110		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	550		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	5.19				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-118415-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.020		0.013	0.0023	mg/L	25		6020	Total Recoverable
Calcium - DL	2.5		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.00085	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.035	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	5.33				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-118415-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.023		0.013	0.0023	mg/L	25		6020	Total Recoverable
Boron - DL	2.6		0.25	0.090	mg/L	25		6020	Total Recoverable
Calcium - DL	84		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.00063	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0051	I	0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00023	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	490		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	43		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.11		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	230		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.82				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-118415-6

No Detections.

Client Sample ID: FB-03 — Lab Sample ID: 400-118415-7

No Detections.

Client Sample ID: EB-02 — Lab Sample ID: 400-118415-8

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: EB-03 — Lab Sample ID: 400-118415-9

No Detections.

Client Sample ID: DUP-04 — Lab Sample ID: 400-118415-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.026		0.013	0.0023	mg/L	25		6020	Total Recoverable
Boron - DL	2.9		0.25	0.090	mg/L	25		6020	Total Recoverable
Calcium - DL	55		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.00055	I	0.013	0.00050	mg/L	25		6020	Total Recoverable
Lithium - DL	0.034		0.013	0.0080	mg/L	25		6020	Total Recoverable
Molybdenum - DL	0.98		0.075	0.0010	mg/L	25		6020	Total Recoverable
Selenium - DL	0.0081		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00020	I	0.0025	0.00013	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	410		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	37		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.16				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-118415-1	MW-300	Water	03/03/16 13:05	03/04/16 09:00
400-118415-2	MW-303	Water	03/03/16 18:12	03/04/16 09:00
400-118415-3	MW-304	Water	03/03/16 15:50	03/04/16 09:00
400-118415-4	MW-305	Water	03/03/16 14:30	03/04/16 09:00
400-118415-5	MW-308	Water	03/03/16 17:15	03/04/16 09:00
400-118415-6	FB-02	Water	03/02/16 18:40	03/04/16 09:00
400-118415-7	FB-03	Water	03/03/16 16:35	03/04/16 09:00
400-118415-8	EB-02	Water	03/02/16 18:35	03/04/16 09:00
400-118415-9	EB-03	Water	03/03/16 16:20	03/04/16 09:00
400-118415-10	DUP-04	Water	03/03/16 17:12	03/04/16 09:00

Client Sample ID: MW-300
Date Collected: 03/03/16 13:05
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-1
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:00	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:00	25
Barium	**0.010**	**I**	0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:00	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:00	25
Boron	**0.11**	**I**	0.25	0.090	mg/L		03/07/16 11:43	03/10/16 16:00	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:00	25
Calcium	**1.0**	**I**	1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:00	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:00	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:00	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:00	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:00	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:00	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:00	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:00	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		03/07/16 10:02	03/10/16 14:12	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**18**		5.0	3.4	mg/L			03/10/16 18:51	1
Chloride	**8.2**		2.0	0.60	mg/L			03/07/16 15:49	1
Fluoride	**0.041**	**I**	0.10	0.032	mg/L			03/16/16 18:26	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/10/16 11:32	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.589**		0.140	0.150	1.00	0.115	pCi/L	03/09/16 16:13	03/31/16 07:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*40 - 110*	*03/09/16 16:13*	*03/31/16 07:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.03**		0.773	0.857	1.00	0.831	pCi/L	03/31/16 19:19	04/08/16 12:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*03/31/16 19:19*	*04/08/16 12:13*	*1*
Y Carrier	*86.7*		*40 - 110*	*03/31/16 19:19*	*04/08/16 12:13*	*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	**4.62**		0.786	0.870	5.00	0.831	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 03/03/16 13:05
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-1
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.11				SU			03/03/16 13:05	1

Client Sample ID: MW-303

Date Collected: 03/03/16 18:12
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:05	25
Arsenic	**0.0018**	**I**	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:05	25
Barium	**0.024**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:05	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:05	25
Boron	**3.2**		0.25	0.090	mg/L		03/07/16 11:43	03/10/16 16:05	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:05	25
Calcium	**57**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:05	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:05	25
Cobalt	0.00050	U	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:05	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:05	25
Lithium	**0.037**		0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:05	25
Molybdenum	**0.99**		0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:05	25
Selenium	**0.0080**		0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:05	25
Thallium	**0.00023**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:05	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		03/07/16 10:02	03/10/16 14:00	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**420**		5.0	3.4	mg/L			03/10/16 18:51	1
Chloride	**36**		2.0	0.60	mg/L			03/07/16 15:49	1
Fluoride	**0.15**		0.10	0.032	mg/L			03/16/16 18:28	1
Sulfate	**180**		50	14	mg/L			03/14/16 13:24	10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.11**		0.225	0.247	1.00	0.142	pCi/L	03/09/16 16:13	03/31/16 07:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*58.1*		*40 - 110*	*03/09/16 16:13*	*03/31/16 07:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.32**		0.769	0.865	1.00	0.789	pCi/L	03/31/16 19:19	04/08/16 12:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.2*		*40 - 110*	*03/31/16 19:19*	*04/08/16 12:13*	*1*
Y Carrier	*98.3*		*40 - 110*	*03/31/16 19:19*	*04/08/16 12:13*	*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	**5.43**		0.801	0.900	5.00	0.789	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-303
Date Collected: 03/03/16 18:12
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-2
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.16				SU			03/03/16 18:12	1

Client Sample ID: MW-304

Date Collected: 03/03/16 15:50
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:09	25
Arsenic	**0.0090**		0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:09	25
Barium	**0.045**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:09	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:09	25
Boron	**1.6**		0.25	0.090	mg/L		03/07/16 11:43	03/10/16 16:09	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:09	25
Calcium	**160**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:09	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:09	25
Cobalt	**0.19**		0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:09	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:09	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:09	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:09	25
Selenium	**0.0041**	**I**	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:09	25
Thallium	**0.00015**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:09	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000086**	**I**	0.00020	0.000070	mg/L		03/07/16 10:02	03/10/16 14:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		5.0	3.4	mg/L			03/10/16 18:51	1
Chloride	**110**		20	6.0	mg/L			03/07/16 17:17	10
Fluoride	**0.12**		0.10	0.032	mg/L			03/16/16 18:30	1
Sulfate	**550**		150	42	mg/L			03/14/16 13:24	30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**3.31**		0.447	0.537	1.00	0.213	pCi/L	03/09/16 14:54	03/31/16 19:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.6*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**6.15**		0.656	0.867	1.00	0.489	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.6*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*81.9*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	**9.46**		0.794	1.02	5.00	0.489	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-304
Date Collected: 03/03/16 15:50
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.19				SU			03/03/16 15:50	1

Client Sample ID: MW-305

Date Collected: 03/03/16 14:30
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:14	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:14	25
Barium	**0.020**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:14	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:14	25
Boron	0.090	U	0.25	0.090	mg/L		03/07/16 11:43	03/10/16 16:14	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:14	25
Calcium	**2.5**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:14	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:14	25
Cobalt	**0.00085**	**I**	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:14	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:14	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:14	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:14	25
Selenium	0.0012	U	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:14	25
Thallium	0.00013	U	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:14	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		03/07/16 10:02	03/10/16 14:02	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**18**		5.0	3.4	mg/L			03/10/16 18:51	1
Chloride	**7.9**		2.0	0.60	mg/L			03/07/16 16:28	1
Fluoride	**0.035**	**I**	0.10	0.032	mg/L			03/16/16 18:32	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/25/16 08:39	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.466**		0.181	0.186	1.00	0.186	pCi/L	03/09/16 14:54	03/31/16 19:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.20**		0.394	0.409	1.00	0.541	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*81.9*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	**1.67**		0.434	0.450	5.00	0.541	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-305
Date Collected: 03/03/16 14:30
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-4
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.33				SU			03/03/16 14:30	1

Client Sample ID: MW-308

Date Collected: 03/03/16 17:15
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 16:19	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:19	25
Barium	**0.023**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 16:19	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 16:19	25
Boron	**2.6**		0.25	0.090	mg/L		03/07/16 11:43	03/10/16 16:19	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 16:19	25
Calcium	**84**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 16:19	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 16:19	25
Cobalt	**0.00063**	**I**	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 16:19	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 16:19	25
Lithium	0.0080	U	0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 16:19	25
Molybdenum	0.0010	U	0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 16:19	25
Selenium	**0.0051**	**I**	0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 16:19	25
Thallium	**0.00023**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 16:19	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		03/07/16 10:02	03/10/16 14:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**490**		5.0	3.4	mg/L			03/10/16 18:51	1
Chloride	**43**		2.0	0.60	mg/L			03/07/16 16:28	1
Fluoride	**0.11**		0.10	0.032	mg/L			03/16/16 18:40	1
Sulfate	**230**		100	28	mg/L			03/25/16 09:02	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.634**		0.293	0.299	1.00	0.338	pCi/L	03/09/16 14:54	03/31/16 19:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.66**		0.550	0.570	1.00	0.715	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*81.1*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	**2.29**		0.623	0.644	5.00	0.715	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 03/03/16 17:15
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-5
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.82				SU			03/03/16 17:15	1

Client Sample ID: FB-02

Date Collected: 03/02/16 18:40
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/07/16 11:43	03/10/16 15:03	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:03	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/07/16 11:43	03/10/16 15:03	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/07/16 11:43	03/10/16 15:03	5
Boron	0.018	U	0.050	0.018	mg/L		03/07/16 11:43	03/10/16 15:03	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/07/16 11:43	03/10/16 15:03	5
Calcium	0.13	U	0.25	0.13	mg/L		03/07/16 11:43	03/10/16 15:03	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/07/16 11:43	03/10/16 15:03	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/07/16 11:43	03/10/16 15:03	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:03	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/07/16 11:43	03/10/16 15:03	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/07/16 11:43	03/10/16 15:03	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/07/16 11:43	03/10/16 15:03	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/07/16 11:43	03/10/16 15:03	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		03/07/16 10:02	03/10/16 14:05	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			03/08/16 19:01	1
Chloride	0.60	U	2.0	0.60	mg/L			03/07/16 16:28	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/16/16 18:44	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/25/16 08:39	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213	U	0.156	0.158	1.00	0.225	pCi/L	03/09/16 14:54	03/31/16 19:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.2*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.193	U	0.265	0.266	1.00	0.444	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.2*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*84.5*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	0.406	U	0.308	0.309	5.00	0.444	pCi/L		04/11/16 13:05	1

Client Sample ID: FB-03

Date Collected: 03/03/16 16:35
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/07/16 11:43	03/10/16 15:08	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:08	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/07/16 11:43	03/10/16 15:08	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/07/16 11:43	03/10/16 15:08	5
Boron	0.018	U	0.050	0.018	mg/L		03/07/16 11:43	03/10/16 15:08	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/07/16 11:43	03/10/16 15:08	5
Calcium	0.13	U	0.25	0.13	mg/L		03/07/16 11:43	03/10/16 15:08	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/07/16 11:43	03/10/16 15:08	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/07/16 11:43	03/10/16 15:08	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:08	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/07/16 11:43	03/10/16 15:08	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/07/16 11:43	03/10/16 15:08	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/07/16 11:43	03/10/16 15:08	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/07/16 11:43	03/10/16 15:08	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		03/07/16 10:02	03/10/16 14:06	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			03/10/16 18:51	1
Chloride	0.60	U	2.0	0.60	mg/L			03/17/16 09:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/16/16 18:47	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/14/16 14:19	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.172	U	0.141	0.142	1.00	0.209	pCi/L	03/09/16 14:54	03/31/16 19:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.2*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.210	U	0.279	0.279	1.00	0.464	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.2*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	0.382	U	0.312	0.313	5.00	0.464	pCi/L		04/11/16 13:05	1

Client Sample ID: EB-02

Date Collected: 03/02/16 18:35
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/07/16 11:43	03/10/16 15:13	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:13	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/07/16 11:43	03/10/16 15:13	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/07/16 11:43	03/10/16 15:13	5
Boron	0.018	U	0.050	0.018	mg/L		03/07/16 11:43	03/10/16 15:13	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/07/16 11:43	03/10/16 15:13	5
Calcium	0.13	U	0.25	0.13	mg/L		03/07/16 11:43	03/10/16 15:13	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/07/16 11:43	03/10/16 15:13	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/07/16 11:43	03/10/16 15:13	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:13	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/07/16 11:43	03/10/16 15:13	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/07/16 11:43	03/10/16 15:13	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/07/16 11:43	03/10/16 15:13	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/07/16 11:43	03/10/16 15:13	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		03/07/16 10:02	03/10/16 14:13	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			03/08/16 19:01	1
Chloride	0.60	U	2.0	0.60	mg/L			03/17/16 09:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/16/16 18:50	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/14/16 13:48	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0388	U	0.107	0.107	1.00	0.234	pCi/L	03/09/16 14:54	03/31/16 19:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.381	U	0.329	0.331	1.00	0.528	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*81.5*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	0.342	U	0.346	0.348	5.00	0.528	pCi/L		04/11/16 13:05	1

Client Sample ID: EB-03

Date Collected: 03/03/16 16:20
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/07/16 11:43	03/10/16 15:18	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:18	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/07/16 11:43	03/10/16 15:18	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/07/16 11:43	03/10/16 15:18	5
Boron	0.018	U	0.050	0.018	mg/L		03/07/16 11:43	03/10/16 15:18	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/07/16 11:43	03/10/16 15:18	5
Calcium	0.13	U	0.25	0.13	mg/L		03/07/16 11:43	03/10/16 15:18	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/07/16 11:43	03/10/16 15:18	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/07/16 11:43	03/10/16 15:18	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 15:18	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/07/16 11:43	03/10/16 15:18	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/07/16 11:43	03/10/16 15:18	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/07/16 11:43	03/10/16 15:18	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/07/16 11:43	03/10/16 15:18	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		03/07/16 10:02	03/10/16 14:15	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			03/10/16 18:51	1
Chloride	0.60	U	2.0	0.60	mg/L			03/17/16 09:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/16/16 18:54	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/25/16 08:39	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0335	U	0.122	0.122	1.00	0.225	pCi/L	03/09/16 14:54	03/31/16 19:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.269	U	0.243	0.244	1.00	0.390	pCi/L	03/10/16 10:03	03/30/16 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*1*
Y Carrier	*79.3*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:40*	*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	0.302	U	0.272	0.273	5.00	0.390	pCi/L		04/11/16 13:05	1

Client Sample ID: DUP-04

Date Collected: 03/03/16 17:12
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0043	U	0.013	0.0043	mg/L		03/07/16 11:43	03/10/16 15:22	25
Arsenic	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 15:22	25
Barium	**0.026**		0.013	0.0023	mg/L		03/07/16 11:43	03/10/16 15:22	25
Beryllium	0.00030	U	0.013	0.00030	mg/L		03/07/16 11:43	03/10/16 15:22	25
Boron	**2.9**		0.25	0.090	mg/L		03/07/16 11:43	03/10/16 15:22	25
Cadmium	0.00043	U	0.013	0.00043	mg/L		03/07/16 11:43	03/10/16 15:22	25
Calcium	**55**		1.3	0.63	mg/L		03/07/16 11:43	03/10/16 15:22	25
Chromium	0.0019	U	0.013	0.0019	mg/L		03/07/16 11:43	03/10/16 15:22	25
Cobalt	**0.00055**	**I**	0.013	0.00050	mg/L		03/07/16 11:43	03/10/16 15:22	25
Lead	0.0017	U	0.0063	0.0017	mg/L		03/07/16 11:43	03/10/16 15:22	25
Lithium	**0.034**		0.013	0.0080	mg/L		03/07/16 11:43	03/10/16 15:22	25
Molybdenum	**0.98**		0.075	0.0010	mg/L		03/07/16 11:43	03/10/16 15:22	25
Selenium	**0.0081**		0.0063	0.0012	mg/L		03/07/16 11:43	03/10/16 15:22	25
Thallium	**0.00020**	**I**	0.0025	0.00013	mg/L		03/07/16 11:43	03/10/16 15:22	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		03/07/16 10:02	03/10/16 14:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**		5.0	3.4	mg/L			03/10/16 18:51	1
Chloride	**37**		2.0	0.60	mg/L			03/17/16 09:54	1
Fluoride	**0.15**		0.10	0.032	mg/L			03/16/16 18:56	1
Sulfate	**190**		100	28	mg/L			03/25/16 08:58	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.19**		0.267	0.288	1.00	0.218	pCi/L	03/09/16 14:54	03/31/16 19:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**5.23**		0.533	0.718	1.00	0.387	pCi/L	03/10/16 10:03	03/30/16 11:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:41*	*1*
Y Carrier	*83.0*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:41*	*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	**6.42**		0.596	0.773	5.00	0.387	pCi/L		04/11/16 13:05	1

Client Sample Results

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: DUP-04
Date Collected: 03/03/16 17:12
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-10
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.16				SU			03/03/16 17:12	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-300
Date Collected: 03/03/16 13:05
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:00	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 15:49	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	296950	03/10/16 11:32	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239813	03/09/16 16:13	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 07:32	RTM	TAL SL
Total/NA	Prep	PrecSep_0			243081	03/31/16 19:19	CMC	TAL SL
Total/NA	Analysis	9320		1	244971	04/08/16 12:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 13:05	BWS	TAL PEN

Client Sample ID: MW-303
Date Collected: 03/03/16 18:12
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:05	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 15:49	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:28	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	297322	03/14/16 13:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239813	03/09/16 16:13	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 07:32	RTM	TAL SL
Total/NA	Prep	PrecSep_0			243081	03/31/16 19:19	CMC	TAL SL
Total/NA	Analysis	9320		1	244971	04/08/16 12:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 18:12	BWS	TAL PEN

Client Sample ID: MW-304
Date Collected: 03/03/16 15:50
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:09	RJB	TAL PEN

Client Sample ID: MW-304

Date Collected: 03/03/16 15:50
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	296555	03/07/16 17:17	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:30	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	297322	03/14/16 13:24	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 19:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 15:50	BWS	TAL PEN

Client Sample ID: MW-305

Date Collected: 03/03/16 14:30
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:14	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 16:28	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:32	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	298941	03/25/16 08:39	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 19:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 14:30	BWS	TAL PEN

Client Sample ID: MW-308

Date Collected: 03/03/16 17:15
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 16:19	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:04	JAP	TAL PEN

Client Sample ID: MW-308

Lab Sample ID: 400-118415-5

Date Collected: 03/03/16 17:15

Matrix: Water

Date Received: 03/04/16 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 16:28	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	298941	03/25/16 09:02	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 19:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 17:15	BWS	TAL PEN

Client Sample ID: FB-02

Lab Sample ID: 400-118415-6

Date Collected: 03/02/16 18:40

Matrix: Water

Date Received: 03/04/16 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	296980	03/10/16 15:03	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296709	03/08/16 19:01	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	296555	03/07/16 16:28	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	298941	03/25/16 08:39	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 19:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: FB-03

Lab Sample ID: 400-118415-7

Date Collected: 03/03/16 16:35

Matrix: Water

Date Received: 03/04/16 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	296980	03/10/16 15:08	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	297803	03/17/16 09:54	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:47	SLT	TAL PEN

Client Sample ID: FB-03

Lab Sample ID: 400-118415-7

Date Collected: 03/03/16 16:35

Matrix: Water

Date Received: 03/04/16 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	297322	03/14/16 14:19	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243029	03/31/16 19:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: EB-02

Lab Sample ID: 400-118415-8

Date Collected: 03/02/16 18:35

Matrix: Water

Date Received: 03/04/16 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	296980	03/10/16 15:13	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	296709	03/08/16 19:01	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	297803	03/17/16 09:54	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	297322	03/14/16 13:48	SEH	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243020	03/31/16 19:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: EB-03

Lab Sample ID: 400-118415-9

Date Collected: 03/03/16 16:20

Matrix: Water

Date Received: 03/04/16 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	296980	03/10/16 15:18	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	297803	03/17/16 09:54	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:54	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	298941	03/25/16 08:39	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243020	03/31/16 19:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Client Sample ID: EB-03

Date Collected: 03/03/16 16:20
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9320		1	242941	03/30/16 11:40	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL

Client Sample ID: DUP-04

Date Collected: 03/03/16 17:12
Date Received: 03/04/16 09:00

Lab Sample ID: 400-118415-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		296445	03/07/16 11:43	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	296980	03/10/16 15:22	RJB	TAL PEN
Total/NA	Prep	7470A			296412	03/07/16 10:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	296974	03/10/16 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	297026	03/10/16 18:51	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	297803	03/17/16 09:54	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	297707	03/16/16 18:56	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	298941	03/25/16 08:58	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			239803	03/09/16 14:54	MRB	TAL SL
Total/NA	Analysis	9315		1	243020	03/31/16 19:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			239935	03/10/16 10:03	CMC	TAL SL
Total/NA	Analysis	9320		1	242941	03/30/16 11:41	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	245272	04/11/16 13:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	296793	03/03/16 17:12	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 296412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-B-6-B MS	Matrix Spike	Total/NA	Water	7470A	
400-118307-B-6-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
400-118415-1	MW-300	Total/NA	Water	7470A	
400-118415-2	MW-303	Total/NA	Water	7470A	
400-118415-3	MW-304	Total/NA	Water	7470A	
400-118415-4	MW-305	Total/NA	Water	7470A	
400-118415-5	MW-308	Total/NA	Water	7470A	
400-118415-6	FB-02	Total/NA	Water	7470A	
400-118415-7	FB-03	Total/NA	Water	7470A	
400-118415-8	EB-02	Total/NA	Water	7470A	
400-118415-9	EB-03	Total/NA	Water	7470A	
400-118415-10	DUP-04	Total/NA	Water	7470A	
LCS 400-296412/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-296412/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 296445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1 - DL	MW-300	Total Recoverable	Water	3005A	
400-118415-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-118415-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-118415-4 - DL	MW-305	Total Recoverable	Water	3005A	
400-118415-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-118415-6	FB-02	Total Recoverable	Water	3005A	
400-118415-7	FB-03	Total Recoverable	Water	3005A	
400-118415-8	EB-02	Total Recoverable	Water	3005A	
400-118415-9	EB-03	Total Recoverable	Water	3005A	
400-118415-10 - DL	DUP-04	Total Recoverable	Water	3005A	
400-118415-10 MS - DL	DUP-04	Total Recoverable	Water	3005A	
400-118415-10 MSD - DL	DUP-04	Total Recoverable	Water	3005A	
LCS 400-296445/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-296445/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 296974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-B-6-B MS	Matrix Spike	Total/NA	Water	7470A	296412
400-118307-B-6-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	296412
400-118415-1	MW-300	Total/NA	Water	7470A	296412
400-118415-2	MW-303	Total/NA	Water	7470A	296412
400-118415-3	MW-304	Total/NA	Water	7470A	296412
400-118415-4	MW-305	Total/NA	Water	7470A	296412
400-118415-5	MW-308	Total/NA	Water	7470A	296412
400-118415-6	FB-02	Total/NA	Water	7470A	296412
400-118415-7	FB-03	Total/NA	Water	7470A	296412
400-118415-8	EB-02	Total/NA	Water	7470A	296412
400-118415-9	EB-03	Total/NA	Water	7470A	296412
400-118415-10	DUP-04	Total/NA	Water	7470A	296412
LCS 400-296412/15-A	Lab Control Sample	Total/NA	Water	7470A	296412
MB 400-296412/14-A	Method Blank	Total/NA	Water	7470A	296412

Metals (Continued)

Analysis Batch: 296980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1 - DL	MW-300	Total Recoverable	Water	6020	296445
400-118415-2 - DL	MW-303	Total Recoverable	Water	6020	296445
400-118415-3 - DL	MW-304	Total Recoverable	Water	6020	296445
400-118415-4 - DL	MW-305	Total Recoverable	Water	6020	296445
400-118415-5 - DL	MW-308	Total Recoverable	Water	6020	296445
400-118415-6	FB-02	Total Recoverable	Water	6020	296445
400-118415-7	FB-03	Total Recoverable	Water	6020	296445
400-118415-8	EB-02	Total Recoverable	Water	6020	296445
400-118415-9	EB-03	Total Recoverable	Water	6020	296445
400-118415-10 - DL	DUP-04	Total Recoverable	Water	6020	296445
400-118415-10 MS - DL	DUP-04	Total Recoverable	Water	6020	296445
400-118415-10 MSD - DL	DUP-04	Total Recoverable	Water	6020	296445
LCS 400-296445/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	296445
MB 400-296445/1-A ^5	Method Blank	Total Recoverable	Water	6020	296445
MRL 400-296980/22	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 296555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-118307-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-118415-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-118415-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-118415-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-118415-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-118415-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-118415-6	FB-02	Total/NA	Water	SM 4500 Cl- E	
LCS 400-296555/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-296555/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MRL 400-296555/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 296709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118324-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-118415-6	FB-02	Total/NA	Water	SM 2540C	
400-118415-8	EB-02	Total/NA	Water	SM 2540C	
LCS 400-296709/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-296709/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 296950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
LCS 400-296950/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-296950/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MRL 400-296950/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 297026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1	MW-300	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 297026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1 DU	MW-300	Total/NA	Water	SM 2540C	
400-118415-2	MW-303	Total/NA	Water	SM 2540C	
400-118415-3	MW-304	Total/NA	Water	SM 2540C	
400-118415-4	MW-305	Total/NA	Water	SM 2540C	
400-118415-5	MW-308	Total/NA	Water	SM 2540C	
400-118415-7	FB-03	Total/NA	Water	SM 2540C	
400-118415-9	EB-03	Total/NA	Water	SM 2540C	
400-118415-10	DUP-04	Total/NA	Water	SM 2540C	
LCS 400-297026/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-297026/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 297322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-118415-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-118415-7	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-118415-8	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-118590-B-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-118590-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-297322/6	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-297322/40	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MRL 400-297322/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 297707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118307-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-118307-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-118415-1	MW-300	Total/NA	Water	SM 4500 F C	
400-118415-2	MW-303	Total/NA	Water	SM 4500 F C	
400-118415-3	MW-304	Total/NA	Water	SM 4500 F C	
400-118415-4	MW-305	Total/NA	Water	SM 4500 F C	
400-118415-5	MW-308	Total/NA	Water	SM 4500 F C	
400-118415-5 DU	MW-308	Total/NA	Water	SM 4500 F C	
400-118415-6	FB-02	Total/NA	Water	SM 4500 F C	
400-118415-7	FB-03	Total/NA	Water	SM 4500 F C	
400-118415-8	EB-02	Total/NA	Water	SM 4500 F C	
400-118415-9	EB-03	Total/NA	Water	SM 4500 F C	
400-118415-10	DUP-04	Total/NA	Water	SM 4500 F C	
LCS 400-297707/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-297707/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 297803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-7	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-118415-8	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-118415-9	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-118415-10	DUP-04	Total/NA	Water	SM 4500 Cl- E	
400-118657-B-2 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-118657-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-297803/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-297803/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 297803 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-297803/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 298941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-118415-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-118415-6	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-118415-9	EB-03	Total/NA	Water	SM 4500 SO4 E	
400-118415-10	DUP-04	Total/NA	Water	SM 4500 SO4 E	
400-118864-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-118864-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-118864-C-5 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-298941/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-298941/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Rad

Prep Batch: 239803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-3	MW-304	Total/NA	Water	PrecSep-21	
400-118415-4	MW-305	Total/NA	Water	PrecSep-21	
400-118415-5	MW-308	Total/NA	Water	PrecSep-21	
400-118415-6	FB-02	Total/NA	Water	PrecSep-21	
400-118415-7	FB-03	Total/NA	Water	PrecSep-21	
400-118415-8	EB-02	Total/NA	Water	PrecSep-21	
400-118415-9	EB-03	Total/NA	Water	PrecSep-21	
400-118415-10	DUP-04	Total/NA	Water	PrecSep-21	
LCS 160-239803/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-239803/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-239803/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1	MW-300	Total/NA	Water	PrecSep-21	
400-118415-2	MW-303	Total/NA	Water	PrecSep-21	
LCS 160-239813/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-239813/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-239813/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 239935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-3	MW-304	Total/NA	Water	PrecSep_0	
400-118415-4	MW-305	Total/NA	Water	PrecSep_0	
400-118415-5	MW-308	Total/NA	Water	PrecSep_0	
400-118415-6	FB-02	Total/NA	Water	PrecSep_0	
400-118415-7	FB-03	Total/NA	Water	PrecSep_0	
400-118415-8	EB-02	Total/NA	Water	PrecSep_0	
400-118415-9	EB-03	Total/NA	Water	PrecSep_0	
400-118415-10	DUP-04	Total/NA	Water	PrecSep_0	
LCS 160-239935/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 239935 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 160-239935/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-239935/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 243081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1	MW-300	Total/NA	Water	PrecSep_0	
400-118415-2	MW-303	Total/NA	Water	PrecSep_0	
LCS 160-243081/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-243081/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-243081/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 296793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-118415-1	MW-300	Total/NA	Water	Field Sampling	
400-118415-2	MW-303	Total/NA	Water	Field Sampling	
400-118415-3	MW-304	Total/NA	Water	Field Sampling	
400-118415-4	MW-305	Total/NA	Water	Field Sampling	
400-118415-5	MW-308	Total/NA	Water	Field Sampling	
400-118415-10	DUP-04	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-296980/22
Matrix: Water
Analysis Batch: 296980

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.558	I	ug/L		112	
Arsenic	0.250	0.33	U	ug/L		102	
Barium	0.500	0.45	U	ug/L		86	
Beryllium	0.250	0.242	I	ug/L		97	
Boron	5.00	18	U	ug/L		93	
Cadmium	0.250	0.279	I	ug/L		112	
Calcium	50.0	130	U	ug/L		104	
Chromium	0.500	0.476	I	ug/L		95	
Cobalt	0.500	0.464	I	ug/L		93	
Lead	0.250	0.33	U	ug/L		86	
Lithium	0.500	1.6	U	ug/L		55	
Molybdenum	0.500	0.444	I	ug/L		89	
Selenium	0.250	0.254	I	ug/L		102	
Thallium	0.100	0.0950	I	ug/L		95	

Lab Sample ID: MB 400-296445/1-A ^5
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00085	U	0.0025	0.00085	mg/L		03/07/16 11:43	03/10/16 14:49	5
Arsenic	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 14:49	5
Barium	0.00045	U	0.0025	0.00045	mg/L		03/07/16 11:43	03/10/16 14:49	5
Beryllium	0.000060	U	0.0025	0.000060	mg/L		03/07/16 11:43	03/10/16 14:49	5
Boron	0.018	U	0.050	0.018	mg/L		03/07/16 11:43	03/10/16 14:49	5
Cadmium	0.000085	U	0.0025	0.000085	mg/L		03/07/16 11:43	03/10/16 14:49	5
Calcium	0.13	U	0.25	0.13	mg/L		03/07/16 11:43	03/10/16 14:49	5
Chromium	0.00037	U	0.0025	0.00037	mg/L		03/07/16 11:43	03/10/16 14:49	5
Cobalt	0.00010	U	0.0025	0.00010	mg/L		03/07/16 11:43	03/10/16 14:49	5
Lead	0.00033	U	0.0013	0.00033	mg/L		03/07/16 11:43	03/10/16 14:49	5
Lithium	0.0016	U	0.0025	0.0016	mg/L		03/07/16 11:43	03/10/16 14:49	5
Molybdenum	0.00020	U	0.015	0.00020	mg/L		03/07/16 11:43	03/10/16 14:49	5
Selenium	0.00023	U	0.0013	0.00023	mg/L		03/07/16 11:43	03/10/16 14:49	5
Thallium	0.000026	U	0.00050	0.000026	mg/L		03/07/16 11:43	03/10/16 14:49	5

Lab Sample ID: LCS 400-296445/2-A ^1
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0507		mg/L		101	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0455		mg/L		91	80 - 120
Beryllium	0.0500	0.0474		mg/L		95	80 - 120
Boron	0.100	0.0854		mg/L		85	80 - 120
Cadmium	0.0500	0.0475		mg/L		95	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0466		mg/L		93	80 - 120

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

Lab Sample ID: LCS 400-296445/2-A ^1
Matrix: Water
Analysis Batch: 296980

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0454		mg/L		91	80 - 120
Lead	0.0500	0.0465		mg/L		93	80 - 120
Lithium	0.0500	0.0499		mg/L		100	80 - 120
Molybdenum	0.0500	0.0461		mg/L		92	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.00952		mg/L		95	80 - 120

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

Lab Sample ID: 400-118415-10 MS
Matrix: Water
Analysis Batch: 296980

Client Sample ID: DUP-04
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony - DL	0.0043	U	0.0500	0.0601		mg/L		120	75 - 125
Arsenic - DL	0.0017	U	0.0500	0.0565		mg/L		113	75 - 125
Barium - DL	0.026		0.0500	0.0749		mg/L		99	75 - 125
Beryllium - DL	0.00030	U	0.0500	0.0488		mg/L		98	75 - 125
Boron - DL	2.9		0.100	3.24	J3	mg/L		344	75 - 125
Cadmium - DL	0.00043	U	0.0500	0.0509		mg/L		102	75 - 125
Calcium - DL	55		5.00	61.6	J3	mg/L		136	75 - 125
Chromium - DL	0.0019	U	0.0500	0.0484		mg/L		97	75 - 125
Cobalt - DL	0.00055	I	0.0500	0.0467		mg/L		92	75 - 125
Lead - DL	0.0017	U	0.0500	0.0450		mg/L		90	75 - 125
Lithium - DL	0.034		0.0500	0.101	J3	mg/L		133	75 - 125
Molybdenum - DL	0.98		0.0500	1.05	J3	mg/L		140	75 - 125
Selenium - DL	0.0081		0.0500	0.0603		mg/L		105	75 - 125
Thallium - DL	0.00020	I	0.0100	0.0101		mg/L		99	75 - 125

Lab Sample ID: 400-118415-10 MSD
Matrix: Water
Analysis Batch: 296980

Client Sample ID: DUP-04
Prep Type: Total Recoverable
Prep Batch: 296445

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony - DL	0.0043	U	0.0500	0.0558		mg/L		112	75 - 125	7	20
Arsenic - DL	0.0017	U	0.0500	0.0528		mg/L		106	75 - 125	7	20
Barium - DL	0.026		0.0500	0.0713		mg/L		91	75 - 125	5	20
Beryllium - DL	0.00030	U	0.0500	0.0480		mg/L		96	75 - 125	2	20
Boron - DL	2.9		0.100	3.30	J3	mg/L		405	75 - 125	2	20
Cadmium - DL	0.00043	U	0.0500	0.0484		mg/L		97	75 - 125	5	20
Calcium - DL	55		5.00	61.1	J3	mg/L		127	75 - 125	1	20
Chromium - DL	0.0019	U	0.0500	0.0472		mg/L		94	75 - 125	2	20
Cobalt - DL	0.00055	I	0.0500	0.0486		mg/L		96	75 - 125	4	20
Lead - DL	0.0017	U	0.0500	0.0443		mg/L		89	75 - 125	2	20
Lithium - DL	0.034		0.0500	0.0986	J3	mg/L		129	75 - 125	2	20
Molybdenum - DL	0.98		0.0500	1.03		mg/L		86	75 - 125	3	20
Selenium - DL	0.0081		0.0500	0.0602		mg/L		104	75 - 125	0	20
Thallium - DL	0.00020	I	0.0100	0.00980		mg/L		96	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-296412/14-A
Matrix: Water
Analysis Batch: 296974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 296412

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/07/16 10:01	03/10/16 13:23	1

Lab Sample ID: LCS 400-296412/15-A
Matrix: Water
Analysis Batch: 296974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 296412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00108		mg/L		107	80 - 120

Lab Sample ID: 400-118307-B-6-B MS
Matrix: Water
Analysis Batch: 296974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 296412

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00213		mg/L		106	80 - 120

Lab Sample ID: 400-118307-B-6-C MSD
Matrix: Water
Analysis Batch: 296974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 296412

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	0.00217		mg/L		108	80 - 120	2	20

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

Lab Sample ID: MB 400-296709/1
Matrix: Water
Analysis Batch: 296709

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			03/08/16 19:01	1

Lab Sample ID: LCS 400-296709/2
Matrix: Water
Analysis Batch: 296709

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	286		mg/L		98	78 - 122

Lab Sample ID: 400-118324-A-4 DU
Matrix: Water
Analysis Batch: 296709

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		122		mg/L		0	5

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

Lab Sample ID: MB 400-297026/1
Matrix: Water
Analysis Batch: 297026

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			03/10/16 18:51	1

Lab Sample ID: LCS 400-297026/2
Matrix: Water
Analysis Batch: 297026

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	292		mg/L		100	78 - 122

Lab Sample ID: 400-118415-1 DU
Matrix: Water
Analysis Batch: 297026

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	18		18.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-296555/6
Matrix: Water
Analysis Batch: 296555

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/07/16 14:32	1

Lab Sample ID: LCS 400-296555/7
Matrix: Water
Analysis Batch: 296555

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	30.4		mg/L		101	90 - 110

Lab Sample ID: MRL 400-296555/3
Matrix: Water
Analysis Batch: 296555

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	1.61	I	mg/L		81	50 - 150

Lab Sample ID: 400-118307-B-4 MS
Matrix: Water
Analysis Batch: 296555

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	6.2		10.0	15.5		mg/L		93	73 - 120

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

Lab Sample ID: 400-118307-B-4 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 296555

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.2		10.0	15.5		mg/L		93	73 - 120	0	8

Lab Sample ID: MB 400-297803/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 297803

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/17/16 09:54	1

Lab Sample ID: LCS 400-297803/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 297803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	29.5		mg/L		98	90 - 110

Lab Sample ID: MRL 400-297803/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 297803

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.65	I	mg/L		83	50 - 150

Lab Sample ID: 400-118657-B-2 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 297803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.7		10.0	13.7		mg/L		99	73 - 120

Lab Sample ID: 400-118657-B-2 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 297803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.7		10.0	13.8		mg/L		101	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-297707/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 297707

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/16/16 17:43	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-297707/4
Matrix: Water
Analysis Batch: 297707

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	4.28		mg/L		107	90 - 110		

Lab Sample ID: 400-118307-A-6 MS
Matrix: Water
Analysis Batch: 297707

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	0.042	I	1.00	1.04		mg/L		100	75 - 125		

Lab Sample ID: 400-118307-A-6 MSD
Matrix: Water
Analysis Batch: 297707

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	0.042	I	1.00	1.04		mg/L		100	75 - 125	0	4

Lab Sample ID: 400-118415-5 DU
Matrix: Water
Analysis Batch: 297707

Client Sample ID: MW-308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.11			0.112		mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-296950/6
Matrix: Water
Analysis Batch: 296950

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			03/10/16 09:04	1

Lab Sample ID: LCS 400-296950/7
Matrix: Water
Analysis Batch: 296950

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	13.8		mg/L		92	90 - 110		

Lab Sample ID: MRL 400-296950/3
Matrix: Water
Analysis Batch: 296950

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	4.84	I	mg/L		97	50 - 150		

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

Lab Sample ID: MB 400-297322/40
Matrix: Water
Analysis Batch: 297322

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			03/14/16 13:48	1

Lab Sample ID: LCS 400-297322/6
Matrix: Water
Analysis Batch: 297322

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	13.8		mg/L		92	90 - 110

Lab Sample ID: MRL 400-297322/3
Matrix: Water
Analysis Batch: 297322

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	4.70	I	mg/L		94	50 - 150

Lab Sample ID: 400-118590-B-2 MS
Matrix: Water
Analysis Batch: 297322

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	5.0		10.0	14.4		mg/L		94	77 - 128

Lab Sample ID: 400-118590-B-2 MSD
Matrix: Water
Analysis Batch: 297322

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	5.0		10.0	14.6		mg/L		95	77 - 128	1	5

Lab Sample ID: MB 400-298941/6
Matrix: Water
Analysis Batch: 298941

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			03/25/16 08:15	1

Lab Sample ID: LCS 400-298941/7
Matrix: Water
Analysis Batch: 298941

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	14.8		mg/L		99	90 - 110

Lab Sample ID: 400-118864-C-1 MS
Matrix: Water
Analysis Batch: 298941

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	17		20.0	26.4	J3	mg/L		49	77 - 128

Lab Sample ID: 400-118864-C-1 MSD
Matrix: Water
Analysis Batch: 298941

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	17		20.0	26.3	J3	mg/L		49	77 - 128	0	5

Lab Sample ID: 400-118864-C-5 DU
Matrix: Water
Analysis Batch: 298941

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	14		14.0		mg/L		0.4	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-239803/1-A
Matrix: Water
Analysis Batch: 243029

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239803

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1172	U	0.126	0.127	1.00	0.204	pCi/L	03/09/16 14:54	03/31/16 19:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/09/16 14:54*	*03/31/16 19:54*	*1*

Lab Sample ID: LCS 160-239803/2-A
Matrix: Water
Analysis Batch: 243029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239803

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	11.74		1.29	1.00	0.230	pCi/L	105	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.7*		*40 - 110*

Lab Sample ID: LCSD 160-239803/3-A
Matrix: Water
Analysis Batch: 243029

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239803

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	10.32		1.16	1.00	0.204	pCi/L	92	68 - 137	0.58	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*95.7*		*40 - 110*

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

Lab Sample ID: MB 160-239813/1-A
Matrix: Water
Analysis Batch: 243029

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239813

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1126	U	0.0844	0.0850	1.00	0.125	pCi/L	03/09/16 16:13	03/31/16 07:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/09/16 16:13*	*03/31/16 07:31*	*1*

Lab Sample ID: LCS 160-239813/2-A
Matrix: Water
Analysis Batch: 243029

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239813

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.02		1.22	1.00	0.134	pCi/L	108	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*

Lab Sample ID: LCSD 160-239813/3-A
Matrix: Water
Analysis Batch: 243029

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239813

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	10.90		1.13	1.00	0.121	pCi/L	98	68 - 137	0.48	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*100*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-239935/1-A
Matrix: Water
Analysis Batch: 242937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 239935

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2682	U	0.278	0.279	1.00	0.455	pCi/L	03/10/16 10:03	03/30/16 11:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:31*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/10/16 10:03*	*03/30/16 11:31*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-239935/2-A
Matrix: Water
Analysis Batch: 242937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 239935

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.4	9.332		1.10	1.00	0.433	pCi/L	61	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.7*		*40 - 110*
Y Carrier	*80.4*		*40 - 110*

Lab Sample ID: LCSD 160-239935/3-A
Matrix: Water
Analysis Batch: 242937

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 239935

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.4	9.754		1.15	1.00	0.459	pCi/L	63	56 - 140	0.19	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*95.7*		*40 - 110*
Y Carrier	*79.6*		*40 - 110*

Lab Sample ID: MB 160-243081/1-A
Matrix: Water
Analysis Batch: 244971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 243081

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1247	U	0.279	0.280	1.00	0.480	pCi/L	03/31/16 19:19	04/08/16 12:12	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.0*		*40 - 110*	*03/31/16 19:19*	*04/08/16 12:12*	*1*
Y Carrier	*90.5*		*40 - 110*	*03/31/16 19:19*	*04/08/16 12:12*	*1*

Lab Sample ID: LCS 160-243081/2-A
Matrix: Water
Analysis Batch: 244971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 243081

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.4	20.13		2.20	1.00	0.576	pCi/L	131	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*57.8*		*40 - 110*
Y Carrier	*90.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-243081/3-A
Matrix: Water
Analysis Batch: 244971

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 243081

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.4	20.03		2.12	1.00	0.434	pCi/L	130	56 - 140	0.02	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*76.9*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

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

Lab Sample ID: 310-76128-A-6 DU
Matrix: Water
Analysis Batch: 245272

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	0.629			0.5977		0.249	5.00	0.318	pCi/L			0.06	

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: Shane Bragg	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53120-23629.1
Client Contact: Carl Eldred	Phone: 850-336-5192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:

Address: 119 S Monroe St ste 300	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Tallahassee	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 - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: FL, 32301			
Phone:	PO #: Purchase Order not required		Other:
Email: carle@hgslaw.com	WO #:		
Project Name: CCR Plant Crist	Project #: 40005424		
Site: Landfill 2	SSOW#:		

400-118415 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, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
MW-300	3-3-16	1305	G	Water	N		X	X	X	X		PH: 5.11
MW-303	"	1012	"	Water	N		X	X	X	X		PH: 6.16
MW-304	"	1550	"	Water	N		X	X	X	X		PH: 5.19
MW-305	"	1430	"	Water	N		X	X	X	X		PH: 5.33
MW-308	3-3-16	1715	G	Water	N		X	X	X	X		PH: 6.82

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]	3-4-16 0900	RDH	DC Albers	3-4-16 0900	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: 1.5°C, 1.5°C, 1.3°C IR-5

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

Chain of Custody Record

11845

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Shane Boggs	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53123-23631.1
Client Contact: Carl Eldred	Phone: 850-338-5192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:

Address: 119 S Monroe St ste 300	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Tallahassee	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 - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: FL, 32301			
Phone:	PO #: Purchase Order not required		
Email: carle@hgslaw.com	WO #:		Other:
Project Name: CCR Plant Crist	Project #: 40005424		
Site:	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	SM4500_Cl_E, SM4500_SO4_E, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020-Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D			
FB-01				Water								
FB-02	3-2-16	1840	G	Water								
FB-03	3-3-16	1635	G	Water	N	X	X	X	X	X		
EB-01				Water								
EB-02	3-2-16	1835	G	Water								
EB-03	3-3-16	1620	G	Water	N	X	X	X	X	X		
DUP-01				Water								
DUP-02				Water								
DUP-03				Water								
DUP-04	3-3-16	1712	G		N	X	X	X	X	X		PH: 6NG

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]	3-4-16 0900	RPHEN	DCAMES	3-4-16 0960	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:

Page 48 of 51

4/11/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-118415-1
SDG Number: Landfill 2

Login Number: 118415
List Number: 1
Creator: Crawford, Lauren E

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	1.5°C, 1.5°C, 1.3°C IR-5
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	

Certification Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	05-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-16
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	05-31-16
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16
Nevada	State Program	9	MO000542016-1	07-31-16
New Jersey	NELAP	2	MO002	06-30-16
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-16

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-118415-1
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16
Texas	NELAP	6	T104704193-15-9	07-31-16
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-121119-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
6/8/2016 11:10:18 AM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 20
Chronicle 21
QC Association 24
QC Sample Results 28
Chain of Custody 37
Receipt Checklists 38
Certification Summary 39

Job ID: 400-121119-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-121119-1

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-250109: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchet was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-100 (400-121119-1), MW-107 (400-121119-2), MW-108 (400-121119-3), MW-306 (400-121119-4), MW-307 (400-121119-5) and DUP-01 (400-121119-6).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-250104: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchet was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-100 (400-121119-1), MW-107 (400-121119-2), MW-108 (400-121119-3), MW-306 (400-121119-4), MW-307 (400-121119-5) and DUP-01 (400-121119-6).

Metals
Method(s) 6020: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 304559 and analytical batch 305312 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Calcium in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 305976 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 sample duplicate precision for the following sample associated with batch 306427 was outside control limits due to sample results being less than 5X the reporting limit.: (400-121128-B-4 DU).

Detection Summary

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-121119-1

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
Calcium	0.78		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0029		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0013	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.76				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-121119-2

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
Calcium	0.58		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000074	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Chloride	6.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-121119-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0034		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00092	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00025	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.1	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.69				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-121119-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.55		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-306 (Continued) — Lab Sample ID: 400-121119-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00079	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	5.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.14				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-121119-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00073	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.83		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.61				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-121119-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0096		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0031		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00092	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00030	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Chloride	5.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.1	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.69				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-121119-1
SDG: Background

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-121119-1	MW-100	Water	05/02/16 12:21	05/03/16 14:50
400-121119-2	MW-107	Water	05/02/16 11:02	05/03/16 14:50
400-121119-3	MW-108	Water	05/02/16 09:47	05/03/16 14:50
400-121119-4	MW-306	Water	05/03/16 07:24	05/03/16 14:50
400-121119-5	MW-307	Water	05/02/16 14:57	05/03/16 14:50
400-121119-6	DUP-01	Water	05/02/16 08:47	05/03/16 14:50

Client Sample ID: MW-100
Date Collected: 05/02/16 12:21
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-1
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		05/04/16 09:30	05/09/16 21:50	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 21:50	5
Barium	**0.013**		0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 21:50	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 21:50	5
Calcium	**0.78**		0.25	0.13	mg/L		05/04/16 09:30	05/09/16 21:50	5
Chromium	**0.0029**		0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 21:50	5
Cobalt	**0.0013**	**I**	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 21:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 21:50	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 21:50	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 21:50	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 21:50	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 21:50	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:11	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:11	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		05/04/16 09:20	05/05/16 14:20	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			05/04/16 15:45	1
Chloride	**4.4**		2.0	0.60	mg/L			05/13/16 13:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 17:01	1
Sulfate	**15**		10	2.8	mg/L			05/13/16 17:18	2

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.281**		0.0780	0.0820	1.00	0.0617	pCi/L	05/09/16 14:15	05/31/16 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*40 - 110*	*05/09/16 14:15*	*05/31/16 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	0.527	U	0.349	0.352	1.00	0.544	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*90.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 05/02/16 12:21
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-1
Matrix: Water

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	0.808		0.358	0.362	5.00	0.544	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.76				SU			05/02/16 12:21	1

Client Sample ID: MW-107
Date Collected: 05/02/16 11:02
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-2
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		05/04/16 09:30	05/09/16 21:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 21:54	5
Barium	**0.013**		0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 21:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 21:54	5
Calcium	**0.58**		0.25	0.13	mg/L		05/04/16 09:30	05/09/16 21:54	5
Chromium	**0.0019**	**I**	0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 21:54	5
Cobalt	**0.0014**	**I**	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 21:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 21:54	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 21:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 21:54	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 21:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 21:54	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:15	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:15	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000074**	**I**	0.00020	0.000070	mg/L		05/04/16 09:20	05/05/16 14:21	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			05/04/16 15:45	1
Chloride	**6.0**		2.0	0.60	mg/L			05/13/16 13:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 17:41	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/13/16 15:43	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.412**		0.104	0.111	1.00	0.0791	pCi/L	05/09/16 14:15	05/31/16 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.7*		*40 - 110*	*05/09/16 14:15*	*05/31/16 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	**0.621**		0.368	0.372	1.00	0.560	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.7*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*84.5*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 05/02/16 11:02
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-2
Matrix: Water

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	1.03		0.382	0.388	5.00	0.560	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.77				SU			05/02/16 11:02	1

Client Sample ID: MW-108

Date Collected: 05/02/16 09:47
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-3

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		05/04/16 09:30	05/09/16 21:59	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 21:59	5
Barium	**0.010**		0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 21:59	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 21:59	5
Calcium	**1.1**		0.25	0.13	mg/L		05/04/16 09:30	05/09/16 21:59	5
Chromium	**0.0034**		0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 21:59	5
Cobalt	**0.00092**	**I**	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 21:59	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 21:59	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 21:59	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 21:59	5
Selenium	**0.00025**	**I**	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 21:59	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 21:59	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:20	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:20	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		05/04/16 09:20	05/05/16 14:22	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6.0**		5.0	3.4	mg/L			05/04/16 15:45	1
Chloride	**6.3**		2.0	0.60	mg/L			05/13/16 13:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 17:46	1
Sulfate	**2.1**	**I**	5.0	1.4	mg/L			05/13/16 15:43	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.377**		0.0925	0.0986	1.00	0.0730	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.24**		0.375	0.392	1.00	0.481	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*87.9*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 05/02/16 09:47
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-3
Matrix: Water

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	1.62		0.386	0.404	5.00	0.481	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.69				SU			05/02/16 09:47	1

Client Sample ID: MW-306

Date Collected: 05/03/16 07:24
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-4

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		05/04/16 09:30	05/09/16 22:03	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 22:03	5
Barium	**0.012**		0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 22:03	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 22:03	5
Calcium	**0.55**		0.25	0.13	mg/L		05/04/16 09:30	05/09/16 22:03	5
Chromium	**0.0012**	**I**	0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 22:03	5
Cobalt	**0.00079**	**I**	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 22:03	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 22:03	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 22:03	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 22:03	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 22:03	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 22:03	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:24	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:24	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		05/04/16 09:20	05/05/16 14:23	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			05/04/16 15:45	1
Chloride	**5.1**		2.0	0.60	mg/L			05/13/16 13:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 17:49	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/13/16 15:43	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.314**		0.0918	0.0960	1.00	0.0863	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.2*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.434	U	0.395	0.397	1.00	0.637	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.2*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*87.9*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 05/03/16 07:24
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-4
Matrix: Water

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	0.748		0.405	0.408	5.00	0.637	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.14				SU			05/03/16 07:24	1

Client Sample ID: MW-307

Date Collected: 05/02/16 14:57
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-5

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		05/04/16 09:30	05/09/16 22:08	5
Arsenic	**0.00073**	**I**	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 22:08	5
Barium	**0.013**		0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 22:08	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 22:08	5
Calcium	**0.83**		0.25	0.13	mg/L		05/04/16 09:30	05/09/16 22:08	5
Chromium	**0.0021**	**I**	0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 22:08	5
Cobalt	**0.0010**	**I**	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 22:08	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 22:08	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 22:08	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 22:08	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 22:08	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 22:08	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:29	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:29	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		05/04/16 09:20	05/05/16 14:25	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			05/05/16 17:27	1
Chloride	**3.6**		2.0	0.60	mg/L			05/13/16 13:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 17:52	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/13/16 15:43	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.193**		0.0699	0.0720	1.00	0.0712	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.9*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*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	0.317	0.318	1.00	0.525	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.9*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-307
Date Collected: 05/02/16 14:57
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-5
Matrix: Water

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	0.445	U	0.324	0.326	5.00	0.525	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.61**				SU			05/02/16 14:57	1

Client Sample ID: DUP-01
Date Collected: 05/02/16 08:47
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-6
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		05/04/16 09:30	05/09/16 22:12	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 22:12	5
Barium	**0.0096**		0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 22:12	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 22:12	5
Calcium	**1.0**		0.25	0.13	mg/L		05/04/16 09:30	05/09/16 22:12	5
Chromium	**0.0031**		0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 22:12	5
Cobalt	**0.00092**	**I**	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 22:12	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 22:12	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 22:12	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 22:12	5
Selenium	**0.00030**	**I**	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 22:12	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 22:12	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:33	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:33	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		05/04/16 09:20	05/05/16 14:33	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			05/05/16 17:27	1
Chloride	**5.8**		2.0	0.60	mg/L			05/13/16 13:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 17:55	1
Sulfate	**2.1**	**I**	5.0	1.4	mg/L			05/13/16 15:42	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.489**		0.114	0.122	1.00	0.112	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.1*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.50**		0.399	0.423	1.00	0.489	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*85.6*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample ID: DUP-01

Date Collected: 05/02/16 08:47
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-6

Matrix: Water

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	1.99		0.415	0.440	5.00	0.489	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.69				SU			05/02/16 08:47	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-100

Date Collected: 05/02/16 12:21
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305312	05/09/16 21:50	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305489	05/10/16 12:11	RJB	TAL PEN
Total/NA	Prep	7470A			304385	05/04/16 09:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304824	05/05/16 14:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304637	05/04/16 15:45	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:37	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306411	05/17/16 17:01	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	305976	05/13/16 17:18	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/02/16 12:21	BWS	TAL PEN

Client Sample ID: MW-107

Date Collected: 05/02/16 11:02
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305312	05/09/16 21:54	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305489	05/10/16 12:15	RJB	TAL PEN
Total/NA	Prep	7470A			304385	05/04/16 09:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304824	05/05/16 14:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304637	05/04/16 15:45	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:37	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 17:41	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	305976	05/13/16 15:43	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/02/16 11:02	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-108

Date Collected: 05/02/16 09:47
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305312	05/09/16 21:59	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305489	05/10/16 12:20	RJB	TAL PEN
Total/NA	Prep	7470A			304385	05/04/16 09:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304824	05/05/16 14:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304637	05/04/16 15:45	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:37	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 17:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	305976	05/13/16 15:43	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/02/16 09:47	BWS	TAL PEN

Client Sample ID: MW-306

Date Collected: 05/03/16 07:24
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305312	05/09/16 22:03	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305489	05/10/16 12:24	RJB	TAL PEN
Total/NA	Prep	7470A			304385	05/04/16 09:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304824	05/05/16 14:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304637	05/04/16 15:45	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:37	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 17:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	305976	05/13/16 15:43	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 07:24	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Client Sample ID: MW-307

Date Collected: 05/02/16 14:57
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305312	05/09/16 22:08	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305489	05/10/16 12:29	RJB	TAL PEN
Total/NA	Prep	7470A			304385	05/04/16 09:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304824	05/05/16 14:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304832	05/05/16 17:27	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:37	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 17:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	305976	05/13/16 15:43	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/02/16 14:57	BWS	TAL PEN

Client Sample ID: DUP-01

Date Collected: 05/02/16 08:47
Date Received: 05/03/16 14:50

Lab Sample ID: 400-121119-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305312	05/09/16 22:12	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304559	05/04/16 09:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305489	05/10/16 12:33	RJB	TAL PEN
Total/NA	Prep	7470A			304385	05/04/16 09:20	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304824	05/05/16 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304832	05/05/16 17:27	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 17:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	305976	05/13/16 15:42	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/02/16 08:47	BWS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Metals

Prep Batch: 304385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121076-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-121076-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
400-121119-1	MW-100	Total/NA	Water	7470A	
400-121119-2	MW-107	Total/NA	Water	7470A	
400-121119-3	MW-108	Total/NA	Water	7470A	
400-121119-4	MW-306	Total/NA	Water	7470A	
400-121119-5	MW-307	Total/NA	Water	7470A	
400-121119-6	DUP-01	Total/NA	Water	7470A	
LCS 400-304385/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-304385/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 304559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121080-B-4-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-121080-B-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-121119-1 - RA	MW-100	Total Recoverable	Water	3005A	
400-121119-1	MW-100	Total Recoverable	Water	3005A	
400-121119-2	MW-107	Total Recoverable	Water	3005A	
400-121119-2 - RA	MW-107	Total Recoverable	Water	3005A	
400-121119-3 - RA	MW-108	Total Recoverable	Water	3005A	
400-121119-3	MW-108	Total Recoverable	Water	3005A	
400-121119-4	MW-306	Total Recoverable	Water	3005A	
400-121119-4 - RA	MW-306	Total Recoverable	Water	3005A	
400-121119-5 - RA	MW-307	Total Recoverable	Water	3005A	
400-121119-5	MW-307	Total Recoverable	Water	3005A	
400-121119-6 - RA	DUP-01	Total Recoverable	Water	3005A	
400-121119-6	DUP-01	Total Recoverable	Water	3005A	
LCS 400-304559/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-304559/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 304824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121076-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	304385
400-121076-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	304385
400-121119-1	MW-100	Total/NA	Water	7470A	304385
400-121119-2	MW-107	Total/NA	Water	7470A	304385
400-121119-3	MW-108	Total/NA	Water	7470A	304385
400-121119-4	MW-306	Total/NA	Water	7470A	304385
400-121119-5	MW-307	Total/NA	Water	7470A	304385
400-121119-6	DUP-01	Total/NA	Water	7470A	304385
LCS 400-304385/15-A	Lab Control Sample	Total/NA	Water	7470A	304385
MB 400-304385/14-A	Method Blank	Total/NA	Water	7470A	304385

Analysis Batch: 305312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121080-B-4-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	304559
400-121080-B-4-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	304559
400-121119-1	MW-100	Total Recoverable	Water	6020	304559
400-121119-2	MW-107	Total Recoverable	Water	6020	304559
400-121119-3	MW-108	Total Recoverable	Water	6020	304559
400-121119-4	MW-306	Total Recoverable	Water	6020	304559

Metals (Continued)

Analysis Batch: 305312 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-5	MW-307	Total Recoverable	Water	6020	304559
400-121119-6	DUP-01	Total Recoverable	Water	6020	304559
LCS 400-304559/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304559
MB 400-304559/1-A ^5	Method Blank	Total Recoverable	Water	6020	304559
MRL 400-305312/18	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 305489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-1 - RA	MW-100	Total Recoverable	Water	6020	304559
400-121119-2 - RA	MW-107	Total Recoverable	Water	6020	304559
400-121119-3 - RA	MW-108	Total Recoverable	Water	6020	304559
400-121119-4 - RA	MW-306	Total Recoverable	Water	6020	304559
400-121119-5 - RA	MW-307	Total Recoverable	Water	6020	304559
400-121119-6 - RA	DUP-01	Total Recoverable	Water	6020	304559
LCS 400-304559/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304559
MB 400-304559/1-A ^5	Method Blank	Total Recoverable	Water	6020	304559
MRL 400-305489/18	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 304637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121079-D-3 DU	Duplicate	Total/NA	Water	SM 2540C	
400-121119-1	MW-100	Total/NA	Water	SM 2540C	
400-121119-2	MW-107	Total/NA	Water	SM 2540C	
400-121119-3	MW-108	Total/NA	Water	SM 2540C	
400-121119-4	MW-306	Total/NA	Water	SM 2540C	
LCS 400-304637/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-304637/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 304832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-5	MW-307	Total/NA	Water	SM 2540C	
400-121119-5 DU	MW-307	Total/NA	Water	SM 2540C	
400-121119-6	DUP-01	Total/NA	Water	SM 2540C	
LCS 400-304832/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-304832/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 305975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-121119-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-121119-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-121119-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-121119-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-121119-5 DU	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-121119-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-121128-B-6 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-121128-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-305975/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 305975 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-305975/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 305976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-121119-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-121119-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-121119-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-121119-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
400-121119-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-121329-C-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-121329-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-121487-A-3 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-305976/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-305976/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 306411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-120841-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-120841-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-120872-A-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	
400-121119-1	MW-100	Total/NA	Water	SM 4500 F C	
LCS 400-306411/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306411/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 306427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-2	MW-107	Total/NA	Water	SM 4500 F C	
400-121119-2 MS	MW-107	Total/NA	Water	SM 4500 F C	
400-121119-2 MSD	MW-107	Total/NA	Water	SM 4500 F C	
400-121119-3	MW-108	Total/NA	Water	SM 4500 F C	
400-121119-4	MW-306	Total/NA	Water	SM 4500 F C	
400-121119-5	MW-307	Total/NA	Water	SM 4500 F C	
400-121119-6	DUP-01	Total/NA	Water	SM 4500 F C	
400-121128-B-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-306427/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306427/3	Method Blank	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 250104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-1	MW-100	Total/NA	Water	PrecSep-21	
400-121119-2	MW-107	Total/NA	Water	PrecSep-21	
400-121119-3	MW-108	Total/NA	Water	PrecSep-21	
400-121119-4	MW-306	Total/NA	Water	PrecSep-21	
400-121119-5	MW-307	Total/NA	Water	PrecSep-21	
400-121119-6	DUP-01	Total/NA	Water	PrecSep-21	
LCS 160-250104/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-250104/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 250104 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-250104/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 250109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-1	MW-100	Total/NA	Water	PrecSep_0	
400-121119-2	MW-107	Total/NA	Water	PrecSep_0	
400-121119-3	MW-108	Total/NA	Water	PrecSep_0	
400-121119-4	MW-306	Total/NA	Water	PrecSep_0	
400-121119-5	MW-307	Total/NA	Water	PrecSep_0	
400-121119-6	DUP-01	Total/NA	Water	PrecSep_0	
LCS 160-250109/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-250109/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-250109/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 305277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-1	MW-100	Total/NA	Water	Field Sampling	
400-121119-2	MW-107	Total/NA	Water	Field Sampling	
400-121119-3	MW-108	Total/NA	Water	Field Sampling	
400-121119-4	MW-306	Total/NA	Water	Field Sampling	
400-121119-5	MW-307	Total/NA	Water	Field Sampling	
400-121119-6	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-305312/18
Matrix: Water
Analysis Batch: 305312

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.250	0.33	U	ug/L		110	50 - 150
Barium	0.500	0.572	I	ug/L		114	50 - 150
Beryllium	0.250	0.231	I	ug/L		92	50 - 150
Boron	5.00	18	U	ug/L		55	50 - 150
Cadmium	0.250	0.263	I	ug/L		105	50 - 150
Calcium	50.0	130	U	ug/L		95	50 - 150
Chromium	0.500	0.495	I	ug/L		99	50 - 150
Cobalt	0.500	0.520	I	ug/L		104	50 - 150
Lead	0.250	0.33	U	ug/L		93	50 - 150
Lithium	0.500	1.6	U	ug/L		110	50 - 150
Molybdenum	0.500	0.440	I	ug/L		88	50 - 150
Selenium	0.250	0.23	U	ug/L		82	50 - 150
Thallium	0.100	0.0970	I	ug/L		97	50 - 150

Lab Sample ID: MRL 400-305489/18
Matrix: Water
Analysis Batch: 305489

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.250	0.33	U	ug/L		91	50 - 150
Barium	0.500	0.478	I	ug/L		96	50 - 150
Beryllium	0.250	0.249	I	ug/L		100	50 - 150
Boron	5.00	18	U	ug/L		63	50 - 150
Cadmium	0.250	0.274	I	ug/L		110	50 - 150
Calcium	50.0	130	U	ug/L		112	50 - 150
Chromium	0.500	0.498	I	ug/L		100	50 - 150
Cobalt	0.500	0.498	I	ug/L		100	50 - 150
Lead	0.250	0.33	U	ug/L		88	50 - 150
Lithium	0.500	1.6	U	ug/L		63	50 - 150
Molybdenum	0.500	0.423	I	ug/L		85	50 - 150
Selenium	0.250	0.23	U	ug/L		68	50 - 150
Thallium	0.100	0.0960	I	ug/L		96	50 - 150

Lab Sample ID: MB 400-304559/1-A ^5
Matrix: Water
Analysis Batch: 305312

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/04/16 09:30	05/09/16 20:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/04/16 09:30	05/09/16 20:16	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/04/16 09:30	05/09/16 20:16	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/09/16 20:16	5
Calcium	0.13	U	0.25	0.13	mg/L		05/04/16 09:30	05/09/16 20:16	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/04/16 09:30	05/09/16 20:16	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/04/16 09:30	05/09/16 20:16	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/04/16 09:30	05/09/16 20:16	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/04/16 09:30	05/09/16 20:16	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/04/16 09:30	05/09/16 20:16	5

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

Lab Sample ID: MB 400-304559/1-A ^5
Matrix: Water
Analysis Batch: 305312

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/04/16 09:30	05/09/16 20:16	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/04/16 09:30	05/09/16 20:16	5

Lab Sample ID: MB 400-304559/1-A ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/04/16 09:30	05/10/16 12:02	5
Boron	0.021	U	0.050	0.021	mg/L		05/04/16 09:30	05/10/16 12:02	5

Lab Sample ID: LCS 400-304559/2-A ^1
Matrix: Water
Analysis Batch: 305312

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0505		mg/L		101	80 - 120
Arsenic	0.0500	0.0513		mg/L		103	80 - 120
Barium	0.0500	0.0440		mg/L		88	80 - 120
Cadmium	0.0500	0.0484		mg/L		97	80 - 120
Calcium	5.00	4.89		mg/L		98	80 - 120
Chromium	0.0500	0.0508		mg/L		102	80 - 120
Cobalt	0.0500	0.0503		mg/L		101	80 - 120
Lead	0.0500	0.0482		mg/L		96	80 - 120
Lithium	0.0500	0.0523		mg/L		105	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Selenium	0.0500	0.0503		mg/L		101	80 - 120
Thallium	0.0100	0.00933		mg/L		93	80 - 120

Lab Sample ID: LCS 400-304559/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0478		mg/L		96	80 - 120
Boron	0.100	0.0970		mg/L		97	80 - 120

Lab Sample ID: 400-121080-B-4-B MS ^5
Matrix: Water
Analysis Batch: 305312

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0013	I	0.0500	0.0550		mg/L		107	75 - 125
Arsenic	0.044		0.0500	0.0983		mg/L		108	75 - 125
Barium	0.27		0.0500	0.312		mg/L		93	75 - 125
Beryllium	0.00034	U	0.0500	0.0456		mg/L		91	75 - 125
Boron	0.094		0.100	0.195		mg/L		102	75 - 125
Cadmium	0.00034	U	0.0500	0.0499		mg/L		100	75 - 125
Calcium	150		5.00	162	J3	mg/L		227	75 - 125

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

Lab Sample ID: 400-121080-B-4-B MS ^5
Matrix: Water
Analysis Batch: 305312

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.0011	U	0.0500	0.0514		mg/L		103	75 - 125
Cobalt	0.00040	U	0.0500	0.0517		mg/L		103	75 - 125
Lead	0.00035	U	0.0500	0.0488		mg/L		98	75 - 125
Lithium	0.019		0.0500	0.0691		mg/L		100	75 - 125
Molybdenum	0.0060	I	0.0500	0.0576		mg/L		103	75 - 125
Selenium	0.0025		0.0500	0.0540		mg/L		103	75 - 125
Thallium	0.000085	U	0.0100	0.00966		mg/L		97	75 - 125

Lab Sample ID: 400-121080-B-4-C MSD ^5
Matrix: Water
Analysis Batch: 305312

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 304559

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0013	I	0.0500	0.0534		mg/L		104	75 - 125	3	20
Arsenic	0.044		0.0500	0.0972		mg/L		106	75 - 125	1	20
Barium	0.27		0.0500	0.312		mg/L		92	75 - 125	0	20
Beryllium	0.00034	U	0.0500	0.0466		mg/L		93	75 - 125	2	20
Boron	0.094		0.100	0.197		mg/L		103	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0486		mg/L		97	75 - 125	3	20
Calcium	150		5.00	165	J3	mg/L		277	75 - 125	2	20
Chromium	0.0011	U	0.0500	0.0518		mg/L		104	75 - 125	1	20
Cobalt	0.00040	U	0.0500	0.0512		mg/L		102	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0483		mg/L		97	75 - 125	1	20
Lithium	0.019		0.0500	0.0683		mg/L		99	75 - 125	1	20
Molybdenum	0.0060	I	0.0500	0.0570		mg/L		102	75 - 125	1	20
Selenium	0.0025		0.0500	0.0543		mg/L		104	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.00968		mg/L		97	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-304385/14-A
Matrix: Water
Analysis Batch: 304824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304385

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/03/16 08:41	05/05/16 13:55	1

Lab Sample ID: LCS 400-304385/15-A
Matrix: Water
Analysis Batch: 304824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00107		mg/L		106	80 - 120

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

Lab Sample ID: 400-121076-D-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304824 — **Prep Batch: 304385**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00206		mg/L		102	80 - 120

Lab Sample ID: 400-121076-D-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304824 — **Prep Batch: 304385**

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	0.00218		mg/L		108	80 - 120	6	20

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

Lab Sample ID: MB 400-304637/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304637

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			05/04/16 15:45	1

Lab Sample ID: LCS 400-304637/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	264		mg/L		90	78 - 122

Lab Sample ID: 400-121079-D-3 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304637

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	110		110		mg/L		0	5

Lab Sample ID: MB 400-304832/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304832

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			05/05/16 17:27	1

Lab Sample ID: LCS 400-304832/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304832

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

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

Lab Sample ID: 400-121119-5 DU
Matrix: Water
Analysis Batch: 304832

Client Sample ID: MW-307
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	36			36.0		mg/L				0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-305975/6
Matrix: Water
Analysis Batch: 305975

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/13/16 12:44	1

Lab Sample ID: LCS 400-305975/7
Matrix: Water
Analysis Batch: 305975

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: 400-121128-B-6 MS
Matrix: Water
Analysis Batch: 305975

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	3.6		10.0	13.7		mg/L		102	73 - 120		

Lab Sample ID: 400-121128-B-6 MSD
Matrix: Water
Analysis Batch: 305975

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	3.6		10.0	13.5		mg/L		100	73 - 120	2	8

Lab Sample ID: 400-121119-5 DU
Matrix: Water
Analysis Batch: 305975

Client Sample ID: MW-307
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	3.6			3.40		mg/L				7	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-306411/3
Matrix: Water
Analysis Batch: 306411

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			05/17/16 15:43	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-306411/4
Matrix: Water
Analysis Batch: 306411

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	4.36		mg/L		109	90 - 110		

Lab Sample ID: 400-120841-A-4 MS
Matrix: Water
Analysis Batch: 306411

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	0.040	I	1.00	1.01		mg/L		97	75 - 125		

Lab Sample ID: 400-120841-A-4 MSD
Matrix: Water
Analysis Batch: 306411

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	0.040	I	1.00	0.970		mg/L		93	75 - 125	4	4

Lab Sample ID: 400-120872-A-1 DU
Matrix: Water
Analysis Batch: 306411

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 400-306427/3
Matrix: Water
Analysis Batch: 306427

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			05/17/16 17:33	1

Lab Sample ID: LCS 400-306427/4
Matrix: Water
Analysis Batch: 306427

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	4.28		mg/L		107	90 - 110		

Lab Sample ID: 400-121119-2 MS
Matrix: Water
Analysis Batch: 306427

Client Sample ID: MW-107
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	1.03		mg/L		103	75 - 125		

Lab Sample ID: 400-121119-2 MSD
Matrix: Water
Analysis Batch: 306427

Client Sample ID: MW-107
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	0.990		mg/L		99	75 - 125	4	4

Lab Sample ID: 400-121128-B-4 DU
Matrix: Water
Analysis Batch: 306427

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.050	I	0.0600	I J3	mg/L		18	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-305976/6
Matrix: Water
Analysis Batch: 305976

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			05/13/16 12:46	1

Lab Sample ID: LCS 400-305976/7
Matrix: Water
Analysis Batch: 305976

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	14.7		mg/L		98	90 - 110

Lab Sample ID: 400-121329-C-4 MS
Matrix: Water
Analysis Batch: 305976

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	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128

Lab Sample ID: 400-121329-C-4 MSD
Matrix: Water
Analysis Batch: 305976

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	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128	NC	5

Lab Sample ID: 400-121487-A-3 DU
Matrix: Water
Analysis Batch: 305976

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	280		273		mg/L		1	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-250104/1-A
Matrix: Water
Analysis Batch: 253814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250104

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07290	U	0.0720	0.0723	1.00	0.113	pCi/L	05/09/16 14:15	05/31/16 07:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*43.0*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:47*	*1*

Lab Sample ID: LCS 160-250104/2-A
Matrix: Water
Analysis Batch: 253814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250104

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	13.84		1.35	1.00	0.0753	pCi/L	124	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*68.4*		*40 - 110*

Lab Sample ID: LCSD 160-250104/3-A
Matrix: Water
Analysis Batch: 253814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 250104

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	12.83		1.26	1.00	0.108	pCi/L	115	68 - 137	0.38	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*67.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-250109/1-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250109

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2023	U	0.502	0.503	1.00	0.925	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*43.0*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*86.7*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Lab Sample ID: LCS 160-250109/2-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250109

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	19.36		2.11	1.00	0.573	pCi/L	128	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*68.4*		*40 - 110*
Y Carrier	*84.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-250109/3-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 250109

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.1	18.81		2.05	1.00	0.556	pCi/L	124	56 - 140	0.13	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*67.8*		*40 - 110*
Y Carrier	*86.0*		*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 Sales	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53443-23627.1
Client Contact: Carl Eldred	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:

Address: 119 S Monroe St ste 300	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Tallahassee	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, 32301			
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required		
Email: carle@hgslaw.com	WO #:		
Project Name: CCR Plant Crist Background	Project #: 40005424		
Site:	SSOW#:		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)	Preservation Code:	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Special Instructions/Note:
MW-100	5/2/16	1221	G	Water		X	X	X	X	X	X	PH 4.76
MW-107	5/2/16	1102	G	Water								" 4.77
MW-108	5/2/16	0947	G	Water								" 4.69
MW-306	5/3/16	0724	G	Water								" 5.14
MW-307	5/2/16	1457	G	Water								" 5.61
Dup 01	5/2/16	0847	G	Water		X	X	X	X	X	X	" 4.69
												"

400-121119 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: 5/3/16 1450	Company: IDH	Received by:	Date/Time: 5/3/16 1450	Company: TA PEN 5/3
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: 2.2C LOC IR-2

6/8/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-121119-1
SDG Number: Background

Login Number: 121119
List Number: 1
Creator: Benforado, Jessica L

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	2.2°C, 1.0°C IR-2
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	

Certification Summary

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	07-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-17 *
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16 *
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16 *
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16 *
Nevada	State Program	9	MO000542016-1	07-31-16 *
New Jersey	NELAP	2	MO002	06-30-16 *
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16 *
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-121119-1
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-16 *
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16 *
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-121128-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
6/8/2016 2:00:53 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 30
Chronicle 31
QC Association 37
QC Sample Results 43
Chain of Custody 54
Receipt Checklists 55
Certification Summary 56

Job ID: 400-121128-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-121128-1

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-250109: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchet was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-200 (400-121128-1), MW-201 (400-121128-2), MW-202 (400-121128-3), MW-203 (400-121128-4), MW-204 (400-121128-5), MW-205 (400-121128-6), MW-206 (400-121128-7), DUP-02 (400-121128-8), EB-01 (400-121128-9) and FB-01 (400-121128-10).

Method(s) PrecSep_0: Radium-228 Prep Batch 1060-250109: The following samples had double the Yt carrier added on accident: MW-201 (400-121128-2). The numerical values for the sample were changed accordingly in TALS.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-250104: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchet was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-200 (400-121128-1), MW-201 (400-121128-2), MW-202 (400-121128-3), MW-203 (400-121128-4), MW-204 (400-121128-5), MW-205 (400-121128-6), MW-206 (400-121128-7), DUP-02 (400-121128-8), EB-01 (400-121128-9) and FB-01 (400-121128-10).

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 305254 and analytical batch 305675 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-200 (400-121128-1), MW-201 (400-121128-2), MW-203 (400-121128-4), MW-204 (400-121128-5), MW-206 (400-121128-7) and DUP-02 (400-121128-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 305976 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 306309 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 sample duplicate precision for the following sample associated with batch 306427 was outside control limits due to sample results being less than 5X the reporting limit.: (400-121128-B-4 DU).

Detection Summary

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-121128-1

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	0.076		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0015	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0015		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.016		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00041	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	1200		10	5.0	mg/L	200		6020	Total Recoverable
Boron - DL2	38		4.0	1.7	mg/L	400		6020	Total Recoverable
Mercury	0.0030		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	6400		17	11	mg/L	1		SM 2540C	Total/NA
Chloride	2500		200	60	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	2.2	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.10				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-121128-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.0010	I	0.0025	0.0010	mg/L	5		6020	Total Recoverable
Arsenic	0.0068		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.078		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.014		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0026		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0069		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.014		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00050		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	830		10	5.0	mg/L	200		6020	Total Recoverable
Boron - DL2	30		4.0	1.7	mg/L	400		6020	Total Recoverable
Mercury	0.0022		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4500		13	8.5	mg/L	1		SM 2540C	Total/NA
Chloride	1600		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.41		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	500		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	5.62				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-121128-3

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-121128-3

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	6.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0011	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00070	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.32		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	62		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	15		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	360		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.83				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-121128-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00077	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.037		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0034		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0014		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - DL	0.97		0.25	0.11	mg/L	25		6020	Total Recoverable
Thallium - RA	0.00011	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	14		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	73		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.78				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-121128-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0078		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.020		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00091	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0030		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - DL	7.6		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	84		5.0	2.5	mg/L	100		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-121128-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium - RA	0.00074	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00034	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	770		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	69		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	400		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	4.79				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-121128-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0061		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	36		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00040	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.00035	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.059		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	32		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	5.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-121128-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.016		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0025		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0051		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0087		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.019		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	2100		25	13	mg/L	500		6020	Total Recoverable
Boron - DL2	100		10	4.2	mg/L	1000		6020	Total Recoverable
Thallium - RA	0.00089		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.00036		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	13000		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	4900		240	72	mg/L	120		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	740		250	70	mg/L	50		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-206 (Continued) — Lab Sample ID: 400-121128-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	4.26				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-121128-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0036		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.072		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0013		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.016		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	1000		25	13	mg/L	500		6020	Total Recoverable
Boron - DL2	61		10	4.2	mg/L	1000		6020	Total Recoverable
Thallium - RA	0.00043	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0034		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	6300		13	8.5	mg/L	1		SM 2540C	Total/NA
Chloride	2400		200	60	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	510		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	5.10				SU	1		Field Sampling	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-121128-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-121128-10

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-121128-1	MW-200	Water	05/03/16 09:07	05/03/16 16:45
400-121128-2	MW-201	Water	05/04/16 09:05	05/04/16 10:10
400-121128-3	MW-202	Water	05/03/16 13:40	05/03/16 16:45
400-121128-4	MW-203	Water	05/03/16 12:35	05/03/16 16:45
400-121128-5	MW-204	Water	05/03/16 11:35	05/03/16 16:45
400-121128-6	MW-205	Water	05/03/16 13:02	05/03/16 16:45
400-121128-7	MW-206	Water	05/03/16 10:11	05/03/16 16:45
400-121128-8	DUP-02	Water	05/03/16 08:07	05/03/16 16:45
400-121128-9	EB-01	Water	05/03/16 12:55	05/03/16 16:45
400-121128-10	FB-01	Water	05/03/16 11:20	05/03/16 16:45

Client Sample ID: MW-200

Date Collected: 05/03/16 09:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-1

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		05/10/16 08:30	05/11/16 13:10	5
Arsenic	**0.0038**		0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 13:10	5
Barium	**0.076**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 13:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 13:10	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 13:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 13:10	5
Cobalt	**0.0015**	**I**	0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 13:10	5
Lead	**0.0015**		0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 13:10	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 13:10	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 13:10	5
Selenium	**0.016**		0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 13:10	5
Thallium	**0.00041**	**I**	0.00050	0.000085	mg/L		05/10/16 08:30	05/11/16 13:10	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**1200**		10	5.0	mg/L		05/10/16 08:30	05/12/16 19:10	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**38**		4.0	1.7	mg/L		05/10/16 08:30	05/13/16 13:28	400

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0030**		0.00020	0.000070	mg/L		05/05/16 09:35	05/06/16 13:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6400**		17	11	mg/L			05/06/16 15:16	1
Chloride	**2500**		200	60	mg/L			05/13/16 15:12	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/17/16 17:58	1
Sulfate	**2.2**	**I**	5.0	1.4	mg/L			05/13/16 15:42	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**10.6**		0.461	1.06	1.00	0.0642	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.0*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**13.0**		0.908	1.50	1.00	0.496	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.0*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*89.7*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 05/03/16 09:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-1
Matrix: Water

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	23.6		1.02	1.84	5.00	0.496	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.10				SU			05/03/16 09:07	1

Client Sample ID: MW-201
Date Collected: 05/04/16 09:05
Date Received: 05/04/16 10:10

Lab Sample ID: 400-121128-2
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	I	0.0025	0.0010	mg/L		05/10/16 08:30	05/11/16 13:28	5
Arsenic	0.0068		0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 13:28	5
Barium	0.078		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 13:28	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 13:28	5
Cadmium	0.014		0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 13:28	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 13:28	5
Cobalt	0.0026		0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 13:28	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 13:28	5
Lithium	0.0069		0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 13:28	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 13:28	5
Selenium	0.014		0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 13:28	5
Thallium	0.00050		0.00050	0.000085	mg/L		05/10/16 08:30	05/11/16 13:28	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	830		10	5.0	mg/L		05/10/16 08:30	05/12/16 19:14	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	30		4.0	1.7	mg/L		05/10/16 08:30	05/13/16 13:33	400

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0022		0.00020	0.000070	mg/L		05/05/16 09:35	05/06/16 13:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4500		13	8.5	mg/L			05/09/16 10:14	1
Chloride	1600		200	60	mg/L			05/13/16 15:12	100
Fluoride	0.41		0.10	0.032	mg/L			05/17/16 18:00	1
Sulfate	500		150	42	mg/L			05/13/16 18:01	30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	7.27		0.380	0.757	1.00	0.102	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.7*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	12.7		0.879	1.46	1.00	0.479	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.7*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*93.3*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-201
Date Collected: 05/04/16 09:05
Date Received: 05/04/16 10:10

Lab Sample ID: 400-121128-2
Matrix: Water

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	19.9		0.957	1.64	5.00	0.479	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.62				SU			05/04/16 09:05	1

Client Sample ID: MW-202

Date Collected: 05/03/16 13:40
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-3

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		05/10/16 08:30	05/11/16 22:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 22:16	5
Barium	**0.015**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 22:16	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 22:16	5
Calcium	**6.2**		0.25	0.13	mg/L		05/10/16 08:30	05/11/16 22:16	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 22:16	5
Cobalt	**0.0011**	**I**	0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 22:16	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 22:16	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 22:16	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 22:16	5
Selenium	**0.00070**	**I**	0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 22:16	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/12/16 18:29	5
Boron	**0.32**		0.050	0.021	mg/L		05/10/16 08:30	05/12/16 18:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/10/16 08:30	05/12/16 18:29	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		05/05/16 09:35	05/06/16 13:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**62**		5.0	3.4	mg/L			05/06/16 15:16	1
Chloride	**15**		2.0	0.60	mg/L			05/13/16 13:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 18:02	1
Sulfate	**360**		150	42	mg/L			05/13/16 18:01	30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.794**		0.137	0.154	1.00	0.111	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.727**		0.368	0.374	1.00	0.546	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202
Date Collected: 05/03/16 13:40
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-3
Matrix: Water

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		0.392	0.404	5.00	0.546	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.83				SU			05/03/16 13:40	1

Client Sample ID: MW-203
Date Collected: 05/03/16 12:35
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-4
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		05/10/16 08:30	05/11/16 22:21	5
Arsenic	**0.00077**	**I**	0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 22:21	5
Barium	**0.037**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 22:21	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 22:21	5
Calcium	**18**		0.25	0.13	mg/L		05/10/16 08:30	05/11/16 22:21	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 22:21	5
Cobalt	**0.0034**		0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 22:21	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 22:21	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 22:21	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 22:21	5
Selenium	**0.0014**		0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 22:21	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.97**		0.25	0.11	mg/L		05/10/16 08:30	05/12/16 18:43	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/12/16 18:38	5
Thallium	**0.00011**	**I**	0.00050	0.000085	mg/L		05/10/16 08:30	05/12/16 18:38	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		05/05/16 09:35	05/06/16 13:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**160**		5.0	3.4	mg/L			05/07/16 10:32	1
Chloride	**14**		2.0	0.60	mg/L			05/13/16 13:40	1
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/17/16 18:11	1
Sulfate	**73**		25	7.0	mg/L			05/17/16 11:03	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.10**		0.209	0.282	1.00	0.0974	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.1*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.23**		0.582	0.700	1.00	0.519	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*
Y Carrier	*84.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203
Date Collected: 05/03/16 12:35
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-4
Matrix: Water

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	6.33		0.618	0.754	5.00	0.519	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.78				SU			05/03/16 12:35	1

Client Sample ID: MW-204
Date Collected: 05/03/16 11:35
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-5
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		05/10/16 08:30	05/11/16 22:25	5
Arsenic	**0.0078**		0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 22:25	5
Barium	**0.024**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 22:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 22:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 22:25	5
Cobalt	**0.020**		0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 22:25	5
Lead	**0.00091**	**I**	0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 22:25	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 22:25	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 22:25	5
Selenium	**0.0030**		0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 22:25	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**7.6**		1.0	0.42	mg/L		05/10/16 08:30	05/12/16 19:05	100
Calcium	**84**		5.0	2.5	mg/L		05/10/16 08:30	05/12/16 19:05	100

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00074**	**I**	0.0025	0.00034	mg/L		05/10/16 08:30	05/12/16 19:01	5
Thallium	**0.00034**	**I**	0.00050	0.000085	mg/L		05/10/16 08:30	05/12/16 19:01	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		05/05/16 09:35	05/06/16 13:18	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**770**		5.0	3.4	mg/L			05/07/16 10:32	1
Chloride	**69**		10	3.0	mg/L			05/13/16 15:13	5
Fluoride	**0.23**		0.10	0.032	mg/L			05/17/16 18:17	1
Sulfate	**400**		250	70	mg/L			05/17/16 11:32	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.60**		0.177	0.228	1.00	0.0861	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.6*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**11.5**		0.819	1.34	1.00	0.471	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.6*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*
Y Carrier	*91.2*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204
Date Collected: 05/03/16 11:35
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-5
Matrix: Water

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	13.1		0.838	1.36	5.00	0.471	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.79				SU			05/03/16 11:35	1

Client Sample ID: MW-205

Date Collected: 05/03/16 13:02
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-6

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		05/10/16 08:30	05/11/16 22:30	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 22:30	5
Barium	**0.0061**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 22:30	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 22:30	5
Calcium	**36**		0.25	0.13	mg/L		05/10/16 08:30	05/11/16 22:30	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 22:30	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 22:30	5
Lead	**0.00040**	**I**	0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 22:30	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 22:30	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 22:30	5
Selenium	**0.00035**	**I**	0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 22:30	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/12/16 18:34	5
Boron	**0.059**		0.050	0.021	mg/L		05/10/16 08:30	05/12/16 18:34	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/10/16 08:30	05/12/16 18:34	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		05/05/16 09:35	05/06/16 13:19	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**160**		5.0	3.4	mg/L			05/07/16 10:32	1
Chloride	**3.6**		2.0	0.60	mg/L			05/13/16 13:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 18:19	1
Sulfate	**32**		10	2.8	mg/L			05/17/16 10:58	2

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.222**		0.0784	0.0809	1.00	0.0879	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.255	0.256	1.00	0.404	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*
Y Carrier	*90.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205
Date Collected: 05/03/16 13:02
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-6
Matrix: Water

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	0.522		0.267	0.269	5.00	0.404	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.77				SU			05/03/16 13:02	1

Client Sample ID: MW-206

Date Collected: 05/03/16 10:11
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-7

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		05/10/16 08:30	05/11/16 22:34	5
Arsenic	**0.016**		0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 22:34	5
Barium	**0.11**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 22:34	5
Cadmium	**0.0025**		0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 22:34	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 22:34	5
Cobalt	**0.0051**		0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 22:34	5
Lead	**0.0087**		0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 22:34	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 22:34	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 22:34	5
Selenium	**0.019**		0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 22:34	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**2100**		25	13	mg/L		05/10/16 08:30	05/13/16 13:55	500

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**100**		10	4.2	mg/L		05/10/16 08:30	05/13/16 14:12	1000

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/13/16 13:51	5
Thallium	**0.00089**		0.00050	0.000085	mg/L		05/10/16 08:30	05/13/16 13:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00036**		0.00020	0.000070	mg/L		05/05/16 09:35	05/06/16 13:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**13000**		25	17	mg/L			05/07/16 10:32	1
Chloride	**4900**		240	72	mg/L			05/13/16 15:12	120
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/17/16 18:23	1
Sulfate	**740**		250	70	mg/L			05/17/16 11:32	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**16.0**		0.558	1.55	1.00	0.0784	pCi/L	05/09/16 14:15	05/31/16 07:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.1*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**19.5**		1.09	2.10	1.00	0.508	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Client Sample ID: MW-206

Date Collected: 05/03/16 10:11
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-7

Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	70.1		40 - 110	05/09/16 14:58	05/19/16 14:09	1
Y Carrier	87.5		40 - 110	05/09/16 14:58	05/19/16 14:09	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	35.5		1.23	2.61	5.00	0.508	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.26				SU			05/03/16 10:11	1

Client Sample ID: DUP-02

Date Collected: 05/03/16 08:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-8

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		05/10/16 08:30	05/11/16 22:38	5
Arsenic	**0.0036**		0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 22:38	5
Barium	**0.072**		0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 22:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 22:38	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 22:38	5
Cobalt	**0.0014**	**I**	0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 22:38	5
Lead	**0.0013**		0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 22:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 22:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 22:38	5
Selenium	**0.016**		0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 22:38	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**1000**		25	13	mg/L		05/10/16 08:30	05/13/16 14:07	500

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**61**		10	4.2	mg/L		05/10/16 08:30	05/13/16 14:16	1000

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/13/16 13:59	5
Thallium	**0.00043**	**I**	0.00050	0.000085	mg/L		05/10/16 08:30	05/13/16 13:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0034**		0.00020	0.000070	mg/L		05/05/16 09:35	05/06/16 13:32	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6300**		13	8.5	mg/L			05/07/16 10:32	1
Chloride	**2400**		200	60	mg/L			05/13/16 15:13	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/17/16 18:26	1
Sulfate	**510**		250	70	mg/L			05/17/16 11:32	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**10.5**		0.435	1.04	1.00	0.0681	pCi/L	05/09/16 14:15	05/31/16 07:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**12.4**		0.807	1.40	1.00	0.424	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Client Sample ID: DUP-02
Date Collected: 05/03/16 08:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-8
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110	05/09/16 14:58	05/19/16 14:09	1
Y Carrier	93.5		40 - 110	05/09/16 14:58	05/19/16 14:09	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	22.9		0.916	1.74	5.00	0.424	pCi/L		06/01/16 11:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.10				SU			05/03/16 08:07	1

Client Sample ID: EB-01

Date Collected: 05/03/16 12:55
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-9

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		05/09/16 08:45	05/10/16 19:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 19:54	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 19:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 19:54	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 19:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 19:54	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 19:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 19:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 19:54	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 19:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 19:54	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/11/16 12:07	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/11/16 12:07	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/11/16 12:07	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		05/05/16 09:35	05/06/16 13:33	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22		5.0	3.4	mg/L			05/07/16 10:32	1
Chloride	0.60	U	2.0	0.60	mg/L			05/13/16 13:45	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 18:29	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 10:42	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0417	U	0.0424	0.0426	1.00	0.0667	pCi/L	05/09/16 14:15	05/31/16 07:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.6*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0151	U	0.241	0.241	1.00	0.438	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.6*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: EB-01
Date Collected: 05/03/16 12:55
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-9
Matrix: Water

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	0.0265	U	0.245	0.245	5.00	0.438	pCi/L		06/01/16 11:53	1

Client Sample ID: FB-01
Date Collected: 05/03/16 11:20
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-10
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		05/09/16 08:45	05/10/16 19:58	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 19:58	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 19:58	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 19:58	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 19:58	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 19:58	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 19:58	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 19:58	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 19:58	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 19:58	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 19:58	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/11/16 12:25	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/11/16 12:25	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/12/16 13:50	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		05/05/16 09:35	05/06/16 13:35	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			05/07/16 10:32	1
Chloride	0.60	U	2.0	0.60	mg/L			05/14/16 15:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 18:32	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 10:42	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0934		0.0631	0.0637	1.00	0.0931	pCi/L	05/09/16 14:15	05/31/16 07:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.1*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0436	U	0.271	0.271	1.00	0.480	pCi/L	05/09/16 14:58	05/19/16 14:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.1*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*
Y Carrier	*84.9*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:09*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: FB-01
Date Collected: 05/03/16 11:20
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-10
Matrix: Water

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	0.137	U	0.278	0.279	5.00	0.480	pCi/L		06/01/16 11:53	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.

General Chemistry

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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-200

Date Collected: 05/03/16 09:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 13:10	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	305795	05/12/16 19:10	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	400	305923	05/13/16 13:28	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304987	05/06/16 15:16	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	305975	05/13/16 15:12	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 17:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	305976	05/13/16 15:42	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 09:07	BWS	TAL PEN

Client Sample ID: MW-201

Date Collected: 05/04/16 09:05
Date Received: 05/04/16 10:10

Lab Sample ID: 400-121128-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 13:28	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	305795	05/12/16 19:14	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	400	305923	05/13/16 13:33	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305175	05/09/16 10:14	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	305975	05/13/16 15:12	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	305976	05/13/16 18:01	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/04/16 09:05	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202

Date Collected: 05/03/16 13:40
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 22:16	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305795	05/12/16 18:29	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	304987	05/06/16 15:16	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:02	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	305976	05/13/16 18:01	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 13:40	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 05/03/16 12:35
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 22:21	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305795	05/12/16 18:38	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	305795	05/12/16 18:43	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	306309	05/17/16 11:03	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 12:35	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 05/03/16 11:35
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 22:25	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305795	05/12/16 19:01	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305795	05/12/16 19:05	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	305975	05/13/16 15:13	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	306309	05/17/16 11:32	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 11:35	BWS	TAL PEN

Client Sample ID: MW-205

Date Collected: 05/03/16 13:02
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 22:30	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305795	05/12/16 18:34	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	306309	05/17/16 10:58	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 13:02	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: MW-206

Date Collected: 05/03/16 10:11
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 22:34	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305923	05/13/16 13:51	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	500	305923	05/13/16 13:55	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	1000	305923	05/13/16 14:12	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		120	305975	05/13/16 15:12	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	306309	05/17/16 11:32	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 10:11	BWS	TAL PEN

Client Sample ID: DUP-02

Date Collected: 05/03/16 08:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305675	05/11/16 22:38	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305923	05/13/16 13:59	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	500	305923	05/13/16 14:07	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		305254	05/10/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	1000	305923	05/13/16 14:16	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	305975	05/13/16 15:13	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	306309	05/17/16 11:32	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:49	RTM	TAL SL

Client Sample ID: DUP-02

Date Collected: 05/03/16 08:07
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305277	05/03/16 08:07	BWS	TAL PEN

Client Sample ID: EB-01

Date Collected: 05/03/16 12:55
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 19:54	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305675	05/11/16 12:07	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	305975	05/13/16 13:45	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306309	05/17/16 10:42	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253814	05/31/16 07:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL

Client Sample ID: FB-01

Date Collected: 05/03/16 11:20
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 19:58	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305675	05/11/16 12:25	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA2		304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA2	5	305795	05/12/16 13:50	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 09:35	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305092	05/07/16 10:32	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306058	05/14/16 15:54	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:32	SLT	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Client Sample ID: FB-01

Date Collected: 05/03/16 11:20
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-10

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		1	306309	05/17/16 10:42	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250104	05/09/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	253815	05/31/16 07:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250109	05/09/16 14:58	MCJ	TAL SL
Total/NA	Analysis	9320		1	252039	05/19/16 14:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254110	06/01/16 11:53	RTM	TAL SL

Laboratory References:

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

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

Metals

Prep Batch: 304747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total/NA	Water	7470A	
400-121128-2	MW-201	Total/NA	Water	7470A	
400-121128-3	MW-202	Total/NA	Water	7470A	
400-121128-4	MW-203	Total/NA	Water	7470A	
400-121128-5	MW-204	Total/NA	Water	7470A	
400-121128-6	MW-205	Total/NA	Water	7470A	
400-121128-7	MW-206	Total/NA	Water	7470A	
400-121128-8	DUP-02	Total/NA	Water	7470A	
400-121128-9	EB-01	Total/NA	Water	7470A	
400-121128-10	FB-01	Total/NA	Water	7470A	
400-121185-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-121185-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
LCS 400-304747/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-304747/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 304982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-9	EB-01	Total Recoverable	Water	3005A	
400-121128-9 - RA	EB-01	Total Recoverable	Water	3005A	
400-121128-10	FB-01	Total Recoverable	Water	3005A	
400-121128-10 - RA2	FB-01	Total Recoverable	Water	3005A	
400-121128-10 - RA	FB-01	Total Recoverable	Water	3005A	
400-121216-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-121216-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-304982/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-304982/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 304989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total/NA	Water	7470A	304747
400-121128-2	MW-201	Total/NA	Water	7470A	304747
400-121128-3	MW-202	Total/NA	Water	7470A	304747
400-121128-4	MW-203	Total/NA	Water	7470A	304747
400-121128-5	MW-204	Total/NA	Water	7470A	304747
400-121128-6	MW-205	Total/NA	Water	7470A	304747
400-121128-7	MW-206	Total/NA	Water	7470A	304747
400-121128-8	DUP-02	Total/NA	Water	7470A	304747
400-121128-9	EB-01	Total/NA	Water	7470A	304747
400-121128-10	FB-01	Total/NA	Water	7470A	304747
400-121185-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	304747
400-121185-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	304747
LCS 400-304747/15-A	Lab Control Sample	Total/NA	Water	7470A	304747
MB 400-304747/14-A	Method Blank	Total/NA	Water	7470A	304747

Prep Batch: 305254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-121128-1	MW-200	Total Recoverable	Water	3005A	
400-121128-1 - DL2	MW-200	Total Recoverable	Water	3005A	
400-121128-2 - DL2	MW-201	Total Recoverable	Water	3005A	
400-121128-2	MW-201	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 305254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-121128-3 - RA	MW-202	Total Recoverable	Water	3005A	
400-121128-3	MW-202	Total Recoverable	Water	3005A	
400-121128-4 - DL	MW-203	Total Recoverable	Water	3005A	
400-121128-4 - RA	MW-203	Total Recoverable	Water	3005A	
400-121128-4	MW-203	Total Recoverable	Water	3005A	
400-121128-5	MW-204	Total Recoverable	Water	3005A	
400-121128-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-121128-5 - RA	MW-204	Total Recoverable	Water	3005A	
400-121128-6	MW-205	Total Recoverable	Water	3005A	
400-121128-6 - RA	MW-205	Total Recoverable	Water	3005A	
400-121128-7 - RA	MW-206	Total Recoverable	Water	3005A	
400-121128-7 - DL2	MW-206	Total Recoverable	Water	3005A	
400-121128-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-121128-7	MW-206	Total Recoverable	Water	3005A	
400-121128-8 - DL2	DUP-02	Total Recoverable	Water	3005A	
400-121128-8	DUP-02	Total Recoverable	Water	3005A	
400-121128-8 - DL	DUP-02	Total Recoverable	Water	3005A	
400-121128-8 - RA	DUP-02	Total Recoverable	Water	3005A	
400-121150-F-2-B MS ^10	Matrix Spike	Total Recoverable	Water	3005A	
400-121150-F-2-C MSD ^10	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-305254/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-305254/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 305489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-9	EB-01	Total Recoverable	Water	6020	304982
400-121128-10	FB-01	Total Recoverable	Water	6020	304982
400-121216-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	304982
400-121216-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	304982
LCS 400-304982/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304982
MB 400-304982/1-A ^5	Method Blank	Total Recoverable	Water	6020	304982
MRL 400-305489/18	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 305675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total Recoverable	Water	6020	305254
400-121128-2	MW-201	Total Recoverable	Water	6020	305254
400-121128-3	MW-202	Total Recoverable	Water	6020	305254
400-121128-4	MW-203	Total Recoverable	Water	6020	305254
400-121128-5	MW-204	Total Recoverable	Water	6020	305254
400-121128-6	MW-205	Total Recoverable	Water	6020	305254
400-121128-7	MW-206	Total Recoverable	Water	6020	305254
400-121128-8	DUP-02	Total Recoverable	Water	6020	305254
400-121128-9 - RA	EB-01	Total Recoverable	Water	6020	304982
400-121128-10 - RA	FB-01	Total Recoverable	Water	6020	304982
400-121150-F-2-B MS ^10	Matrix Spike	Total Recoverable	Water	6020	305254
400-121150-F-2-C MSD ^10	Matrix Spike Duplicate	Total Recoverable	Water	6020	305254
LCS 400-305254/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	305254
MB 400-305254/1-A ^5	Method Blank	Total Recoverable	Water	6020	305254

Metals (Continued)

Analysis Batch: 305795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1 - DL	MW-200	Total Recoverable	Water	6020	305254
400-121128-2 - DL	MW-201	Total Recoverable	Water	6020	305254
400-121128-3 - RA	MW-202	Total Recoverable	Water	6020	305254
400-121128-4 - RA	MW-203	Total Recoverable	Water	6020	305254
400-121128-4 - DL	MW-203	Total Recoverable	Water	6020	305254
400-121128-5 - RA	MW-204	Total Recoverable	Water	6020	305254
400-121128-5 - DL	MW-204	Total Recoverable	Water	6020	305254
400-121128-6 - RA	MW-205	Total Recoverable	Water	6020	305254
400-121128-10 - RA2	FB-01	Total Recoverable	Water	6020	304982
LCS 400-305254/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	305254
MB 400-305254/1-A ^5	Method Blank	Total Recoverable	Water	6020	305254

Analysis Batch: 305923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1 - DL2	MW-200	Total Recoverable	Water	6020	305254
400-121128-2 - DL2	MW-201	Total Recoverable	Water	6020	305254
400-121128-7 - RA	MW-206	Total Recoverable	Water	6020	305254
400-121128-7 - DL	MW-206	Total Recoverable	Water	6020	305254
400-121128-7 - DL2	MW-206	Total Recoverable	Water	6020	305254
400-121128-8 - RA	DUP-02	Total Recoverable	Water	6020	305254
400-121128-8 - DL	DUP-02	Total Recoverable	Water	6020	305254
400-121128-8 - DL2	DUP-02	Total Recoverable	Water	6020	305254

General Chemistry

Analysis Batch: 304987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-120841-A-11 DU	Duplicate	Total/NA	Water	SM 2540C	
400-121128-1	MW-200	Total/NA	Water	SM 2540C	
400-121128-3	MW-202	Total/NA	Water	SM 2540C	
LCS 400-304987/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-304987/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 305092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-4	MW-203	Total/NA	Water	SM 2540C	
400-121128-5	MW-204	Total/NA	Water	SM 2540C	
400-121128-6	MW-205	Total/NA	Water	SM 2540C	
400-121128-7	MW-206	Total/NA	Water	SM 2540C	
400-121128-8	DUP-02	Total/NA	Water	SM 2540C	
400-121128-9	EB-01	Total/NA	Water	SM 2540C	
400-121128-10	FB-01	Total/NA	Water	SM 2540C	
400-121139-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 400-305092/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-305092/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 305175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-2	MW-201	Total/NA	Water	SM 2540C	
400-121196-B-6 DU	Duplicate	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 305175 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-305175/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-305175/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 305975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-B-5 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-121128-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-121128-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-121128-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-121128-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-121128-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-121128-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-121128-6 MS	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-121128-6 MSD	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-121128-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-121128-8	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-121128-9	EB-01	Total/NA	Water	SM 4500 Cl- E	
LCS 400-305975/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-305975/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 305976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-121128-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-121128-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-121329-C-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-121329-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-121487-A-3 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-305976/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-305976/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 306058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-10	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-121459-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-121459-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-121494-A-1 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-306058/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-306058/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 306309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-121128-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-121128-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-121128-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-121128-8	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-121128-9	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-121128-9 DU	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-121128-10	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-121459-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 306309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121459-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-306309/12	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 400-306309/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCSD 400-306309/13	Lab Control Sample Dup	Total/NA	Water	SM 4500 SO4 E	
MB 400-306309/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 306427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-B-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-121119-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-121128-1	MW-200	Total/NA	Water	SM 4500 F C	
400-121128-2	MW-201	Total/NA	Water	SM 4500 F C	
400-121128-3	MW-202	Total/NA	Water	SM 4500 F C	
400-121128-4	MW-203	Total/NA	Water	SM 4500 F C	
400-121128-4 DU	MW-203	Total/NA	Water	SM 4500 F C	
400-121128-5	MW-204	Total/NA	Water	SM 4500 F C	
400-121128-6	MW-205	Total/NA	Water	SM 4500 F C	
400-121128-7	MW-206	Total/NA	Water	SM 4500 F C	
400-121128-8	DUP-02	Total/NA	Water	SM 4500 F C	
400-121128-9	EB-01	Total/NA	Water	SM 4500 F C	
400-121128-10	FB-01	Total/NA	Water	SM 4500 F C	
LCS 400-306427/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306427/3	Method Blank	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 250104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total/NA	Water	PrecSep-21	
400-121128-2	MW-201	Total/NA	Water	PrecSep-21	
400-121128-3	MW-202	Total/NA	Water	PrecSep-21	
400-121128-4	MW-203	Total/NA	Water	PrecSep-21	
400-121128-5	MW-204	Total/NA	Water	PrecSep-21	
400-121128-6	MW-205	Total/NA	Water	PrecSep-21	
400-121128-7	MW-206	Total/NA	Water	PrecSep-21	
400-121128-8	DUP-02	Total/NA	Water	PrecSep-21	
400-121128-9	EB-01	Total/NA	Water	PrecSep-21	
400-121128-10	FB-01	Total/NA	Water	PrecSep-21	
LCS 160-250104/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-250104/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-250104/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 250109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total/NA	Water	PrecSep_0	
400-121128-2	MW-201	Total/NA	Water	PrecSep_0	
400-121128-3	MW-202	Total/NA	Water	PrecSep_0	
400-121128-4	MW-203	Total/NA	Water	PrecSep_0	
400-121128-5	MW-204	Total/NA	Water	PrecSep_0	
400-121128-6	MW-205	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 250109 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-7	MW-206	Total/NA	Water	PrecSep_0	
400-121128-8	DUP-02	Total/NA	Water	PrecSep_0	
400-121128-9	EB-01	Total/NA	Water	PrecSep_0	
400-121128-10	FB-01	Total/NA	Water	PrecSep_0	
LCS 160-250109/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-250109/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-250109/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 305277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-1	MW-200	Total/NA	Water	Field Sampling	
400-121128-2	MW-201	Total/NA	Water	Field Sampling	
400-121128-3	MW-202	Total/NA	Water	Field Sampling	
400-121128-4	MW-203	Total/NA	Water	Field Sampling	
400-121128-5	MW-204	Total/NA	Water	Field Sampling	
400-121128-6	MW-205	Total/NA	Water	Field Sampling	
400-121128-7	MW-206	Total/NA	Water	Field Sampling	
400-121128-8	DUP-02	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-305489/18
Matrix: Water
Analysis Batch: 305489

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.250	0.33	U	ug/L		91	50 - 150
Barium	0.500	0.478	I	ug/L		96	50 - 150
Beryllium	0.250	0.249	I	ug/L		100	50 - 150
Boron	5.00	18	U	ug/L		63	50 - 150
Cadmium	0.250	0.274	I	ug/L		110	50 - 150
Calcium	50.0	130	U	ug/L		112	50 - 150
Chromium	0.500	0.498	I	ug/L		100	50 - 150
Cobalt	0.500	0.498	I	ug/L		100	50 - 150
Lead	0.250	0.33	U	ug/L		88	50 - 150
Lithium	0.500	1.6	U	ug/L		63	50 - 150
Molybdenum	0.500	0.423	I	ug/L		85	50 - 150
Selenium	0.250	0.23	U	ug/L		68	50 - 150
Thallium	0.100	0.0960	I	ug/L		96	50 - 150

Lab Sample ID: MB 400-304982/1-A ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/09/16 08:45	05/10/16 17:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 17:39	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 17:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:39	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 17:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:39	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 17:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 17:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 17:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 17:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 17:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 17:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 17:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 17:39	5

Lab Sample ID: LCS 400-304982/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0536		mg/L		107	80 - 120
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0472		mg/L		94	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0975		mg/L		98	80 - 120
Cadmium	0.0500	0.0515		mg/L		103	80 - 120
Calcium	5.00	5.03		mg/L		101	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120
Cobalt	0.0500	0.0485		mg/L		97	80 - 120

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

Lab Sample ID: LCS 400-304982/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.0500	0.0496		mg/L		99	80 - 120
Selenium	0.0500	0.0498		mg/L		100	80 - 120
Thallium	0.0100	0.00999		mg/L		100	80 - 120

Lab Sample ID: 400-121216-H-1-B MS ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0566		mg/L		113	75 - 125
Arsenic	0.0020		0.0500	0.0563		mg/L		109	75 - 125
Barium	0.044		0.0500	0.0910		mg/L		94	75 - 125
Beryllium	0.0011	I	0.0500	0.0503		mg/L		99	75 - 125
Boron	0.17		0.100	0.197	J3	mg/L		27	75 - 125
Cadmium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125
Calcium	200		5.00	202		mg/L		120	75 - 125
Chromium	0.0011	U	0.0500	0.0517		mg/L		103	75 - 125
Cobalt	0.00064	I	0.0500	0.0487		mg/L		96	75 - 125
Lead	0.00035	U	0.0500	0.0471		mg/L		94	75 - 125
Lithium	0.024		0.0500	0.0717		mg/L		96	75 - 125
Molybdenum	0.0010	I	0.0500	0.0517		mg/L		101	75 - 125
Selenium	0.00024	U	0.0500	0.0516		mg/L		103	75 - 125
Thallium	0.000085	U	0.0100	0.00990		mg/L		99	75 - 125

Lab Sample ID: 400-121216-H-1-C MSD ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 304982

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	0.0554		mg/L		111	75 - 125	2	20
Arsenic	0.0020		0.0500	0.0561		mg/L		108	75 - 125	0	20
Barium	0.044		0.0500	0.0905		mg/L		93	75 - 125	1	20
Beryllium	0.0011	I	0.0500	0.0498		mg/L		97	75 - 125	1	20
Boron	0.17		0.100	0.186	J3	mg/L		16	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125	0	20
Calcium	200		5.00	200		mg/L		86	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0505		mg/L		101	75 - 125	2	20
Cobalt	0.00064	I	0.0500	0.0493		mg/L		97	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0477		mg/L		95	75 - 125	1	20
Lithium	0.024		0.0500	0.0720		mg/L		96	75 - 125	0	20
Molybdenum	0.0010	I	0.0500	0.0513		mg/L		101	75 - 125	1	20
Selenium	0.00024	U	0.0500	0.0510		mg/L		102	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125	1	20

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

Lab Sample ID: MB 400-305254/1-A ^5
Matrix: Water
Analysis Batch: 305675

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/10/16 08:30	05/11/16 12:52	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/10/16 08:30	05/11/16 12:52	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/10/16 08:30	05/11/16 12:52	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 12:52	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/11/16 12:52	5
Calcium	0.13	U	0.25	0.13	mg/L		05/10/16 08:30	05/11/16 12:52	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/10/16 08:30	05/11/16 12:52	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/10/16 08:30	05/11/16 12:52	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/10/16 08:30	05/11/16 12:52	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/10/16 08:30	05/11/16 12:52	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/10/16 08:30	05/11/16 12:52	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/10/16 08:30	05/11/16 12:52	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/10/16 08:30	05/11/16 12:52	5

Lab Sample ID: MB 400-305254/1-A ^5
Matrix: Water
Analysis Batch: 305795

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/10/16 08:30	05/12/16 17:49	5
Boron	0.021	U	0.050	0.021	mg/L		05/10/16 08:30	05/12/16 17:49	5
Calcium	0.13	U	0.25	0.13	mg/L		05/10/16 08:30	05/12/16 17:49	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/10/16 08:30	05/12/16 17:49	5

Lab Sample ID: LCS 400-305254/2-A ^1
Matrix: Water
Analysis Batch: 305675

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0531		mg/L		106	80 - 120
Arsenic	0.0500	0.0536		mg/L		107	80 - 120
Barium	0.0500	0.0469		mg/L		94	80 - 120
Beryllium	0.0500	0.0461		mg/L		92	80 - 120
Cadmium	0.0500	0.0502		mg/L		100	80 - 120
Calcium	5.00	5.06		mg/L		101	80 - 120
Chromium	0.0500	0.0507		mg/L		101	80 - 120
Cobalt	0.0500	0.0471		mg/L		94	80 - 120
Lead	0.0500	0.0475		mg/L		95	80 - 120
Lithium	0.0500	0.0516		mg/L		103	80 - 120
Molybdenum	0.0500	0.0493		mg/L		99	80 - 120
Selenium	0.0500	0.0505		mg/L		101	80 - 120
Thallium	0.0100	0.00998		mg/L		100	80 - 120

Lab Sample ID: LCS 400-305254/2-A ^1
Matrix: Water
Analysis Batch: 305795

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0485		mg/L		97	80 - 120

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

Lab Sample ID: LCS 400-305254/2-A ^1
Matrix: Water
Analysis Batch: 305795

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.101		mg/L		101	80 - 120
Calcium	5.00	5.21		mg/L		104	80 - 120
Thallium	0.0100	0.00998		mg/L		100	80 - 120

Lab Sample ID: 400-121150-F-2-B MS ^10
Matrix: Water
Analysis Batch: 305675

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0050	U	0.0500	0.0570		mg/L		114	75 - 125
Arsenic	0.013		0.0500	0.0669		mg/L		109	75 - 125
Barium	0.14		0.0500	0.182		mg/L		88	75 - 125
Beryllium	0.023		0.0500	0.0693		mg/L		92	75 - 125
Boron	0.11	U	0.100	0.042	U J3	mg/L		0	75 - 125
Cadmium	0.0017	U	0.0500	0.0477		mg/L		95	75 - 125
Calcium	950		5.00	920	L J3	mg/L		-663	75 - 125
Chromium	0.0055	U	0.0500	0.0565		mg/L		113	75 - 125
Cobalt	0.0058	I	0.0500	0.0517		mg/L		92	75 - 125
Lead	0.0018	U	0.0500	0.0469		mg/L		94	75 - 125
Lithium	0.063		0.0500	0.112		mg/L		99	75 - 125
Molybdenum	0.0043	U	0.0500	0.0530		mg/L		106	75 - 125
Selenium	0.0012	U	0.0500	0.0520		mg/L		104	75 - 125
Thallium	0.00043	U	0.0100	0.0105		mg/L		105	75 - 125

Lab Sample ID: 400-121150-F-2-C MSD ^10
Matrix: Water
Analysis Batch: 305675

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 305254

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0050	U	0.0500	0.0547		mg/L		109	75 - 125	4	20
Arsenic	0.013		0.0500	0.0653		mg/L		105	75 - 125	2	20
Barium	0.14		0.0500	0.185		mg/L		94	75 - 125	2	20
Beryllium	0.023		0.0500	0.0698		mg/L		93	75 - 125	1	20
Boron	0.11	U	0.100	0.042	U J3	mg/L		0	75 - 125	NC	20
Cadmium	0.0017	U	0.0500	0.0488		mg/L		98	75 - 125	2	20
Calcium	950		5.00	917	L J3	mg/L		-719	75 - 125	0	20
Chromium	0.0055	U	0.0500	0.0551		mg/L		110	75 - 125	3	20
Cobalt	0.0058	I	0.0500	0.0510		mg/L		90	75 - 125	1	20
Lead	0.0018	U	0.0500	0.0463		mg/L		93	75 - 125	1	20
Lithium	0.063		0.0500	0.112		mg/L		100	75 - 125	0	20
Molybdenum	0.0043	U	0.0500	0.0521		mg/L		104	75 - 125	2	20
Selenium	0.0012	U	0.0500	0.0489		mg/L		98	75 - 125	6	20
Thallium	0.00043	U	0.0100	0.0104		mg/L		104	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-304747/14-A
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304747

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/05/16 09:26	05/06/16 13:08	1

Lab Sample ID: LCS 400-304747/15-A
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304747

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000971		mg/L		96	80 - 120

Lab Sample ID: 400-121185-A-3-B MS
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 304747

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00044		0.00201	0.00214		mg/L		84	80 - 120

Lab Sample ID: 400-121185-A-3-C MSD
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 304747

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00044		0.00201	0.00215		mg/L		84	80 - 120	0	20

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

Lab Sample ID: MB 400-304987/1
Matrix: Water
Analysis Batch: 304987

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			05/06/16 15:16	1

Lab Sample ID: LCS 400-304987/2
Matrix: Water
Analysis Batch: 304987

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: 400-120841-A-11 DU
Matrix: Water
Analysis Batch: 304987

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	5600		5640		mg/L		0	5

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

Lab Sample ID: MB 400-305092/1
Matrix: Water
Analysis Batch: 305092

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			05/07/16 10:32	1

Lab Sample ID: LCS 400-305092/2
Matrix: Water
Analysis Batch: 305092

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	314		mg/L		107	78 - 122

Lab Sample ID: 400-121139-A-5 DU
Matrix: Water
Analysis Batch: 305092

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	140		142		mg/L		1	5

Lab Sample ID: MB 400-305175/1
Matrix: Water
Analysis Batch: 305175

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			05/09/16 10:14	1

Lab Sample ID: LCS 400-305175/2
Matrix: Water
Analysis Batch: 305175

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	268		mg/L		91	78 - 122

Lab Sample ID: 400-121196-B-6 DU
Matrix: Water
Analysis Batch: 305175

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	10000		10400		mg/L		0.8	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-305975/6
Matrix: Water
Analysis Batch: 305975

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/13/16 12:44	1

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

Lab Sample ID: LCS 400-305975/7
Matrix: Water
Analysis Batch: 305975

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: 400-121128-6 MS
Matrix: Water
Analysis Batch: 305975

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.6		10.0	13.7		mg/L		102	73 - 120

Lab Sample ID: 400-121128-6 MSD
Matrix: Water
Analysis Batch: 305975

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.6		10.0	13.5		mg/L		100	73 - 120	2	8

Lab Sample ID: 400-121119-B-5 DU
Matrix: Water
Analysis Batch: 305975

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	3.6		3.40		mg/L		7	8

Lab Sample ID: MB 400-306058/6
Matrix: Water
Analysis Batch: 306058

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/14/16 15:40	1

Lab Sample ID: LCS 400-306058/7
Matrix: Water
Analysis Batch: 306058

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	31.1		mg/L		104	90 - 110

Lab Sample ID: 400-121459-D-1 MS
Matrix: Water
Analysis Batch: 306058

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	13		10.0	23.0		mg/L		96	73 - 120

Lab Sample ID: 400-121459-D-1 MSD
Matrix: Water
Analysis Batch: 306058

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	13		10.0	23.0		mg/L		96	73 - 120	0	8

Lab Sample ID: 400-121494-A-1 DU
Matrix: Water
Analysis Batch: 306058

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	230		237		mg/L		3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-306427/3
Matrix: Water
Analysis Batch: 306427

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			05/17/16 17:33	1

Lab Sample ID: LCS 400-306427/4
Matrix: Water
Analysis Batch: 306427

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	4.28		mg/L		107	90 - 110

Lab Sample ID: 400-121119-B-2 MS
Matrix: Water
Analysis Batch: 306427

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	1.03		mg/L		103	75 - 125

Lab Sample ID: 400-121119-B-2 MSD
Matrix: Water
Analysis Batch: 306427

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	0.990		mg/L		99	75 - 125	4	4

Lab Sample ID: 400-121128-4 DU
Matrix: Water
Analysis Batch: 306427

Client Sample ID: MW-203
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.050	I	0.0600	I J3	mg/L		18	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-305976/6
Matrix: Water
Analysis Batch: 305976

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			05/13/16 12:46	1

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

Lab Sample ID: LCS 400-305976/7
Matrix: Water
Analysis Batch: 305976

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	14.7		mg/L		98	90 - 110		

Lab Sample ID: 400-121329-C-4 MS
Matrix: Water
Analysis Batch: 305976

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	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128		

Lab Sample ID: 400-121329-C-4 MSD
Matrix: Water
Analysis Batch: 305976

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	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128	NC	5

Lab Sample ID: 400-121487-A-3 DU
Matrix: Water
Analysis Batch: 305976

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	280			273		mg/L				1	5

Lab Sample ID: MB 400-306309/6
Matrix: Water
Analysis Batch: 306309

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			05/17/16 08:40	1

Lab Sample ID: LCS 400-306309/7
Matrix: Water
Analysis Batch: 306309

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	14.9		mg/L		99	90 - 110		

Lab Sample ID: 400-121459-D-1 MS
Matrix: Water
Analysis Batch: 306309

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	20		20.0	29.9	J3	mg/L		50	77 - 128		

Lab Sample ID: 400-121459-D-1 MSD
Matrix: Water
Analysis Batch: 306309

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	20		20.0	29.4	J3	mg/L		48	77 - 128	2	5

Lab Sample ID: 400-121128-9 DU
Matrix: Water
Analysis Batch: 306309

Client Sample ID: EB-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	1.4	U		1.4	U	mg/L				NC	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-250104/1-A
Matrix: Water
Analysis Batch: 253814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250104

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07290	U	0.0720	0.0723	1.00	0.113	pCi/L	05/09/16 14:15	05/31/16 07:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*43.0*		*40 - 110*	*05/09/16 14:15*	*05/31/16 07:47*	*1*

Lab Sample ID: LCS 160-250104/2-A
Matrix: Water
Analysis Batch: 253814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250104

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	13.84		1.35	1.00	0.0753	pCi/L	124	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*68.4*		*40 - 110*

Lab Sample ID: LCSD 160-250104/3-A
Matrix: Water
Analysis Batch: 253814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 250104

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	12.83		1.26	1.00	0.108	pCi/L	115	68 - 137	0.38	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*67.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-250109/1-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250109

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2023	U	0.502	0.503	1.00	0.925	pCi/L	05/09/16 14:58	05/19/16 14:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*43.0*		*40 - 110*	*05/09/16 14:58*	*05/19/16 14:08*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-250109/1-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250109

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	86.7		40 - 110	05/09/16 14:58	05/19/16 14:08	1

Lab Sample ID: LCS 160-250109/2-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250109

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	19.36		2.11	1.00	0.573	pCi/L	128	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	68.4		40 - 110
Y Carrier	84.1		40 - 110

Lab Sample ID: LCSD 160-250109/3-A
Matrix: Water
Analysis Batch: 252039

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 250109

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.1	18.81		2.05	1.00	0.556	pCi/L	124	56 - 140	0.13	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	67.8		40 - 110
Y Carrier	86.0		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: Shane Bragg	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53464-23630.1
Client Contact: Carl Eldred	Phone: 850-3366-0144	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams		Analysis Requested		Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			Preservation Codes:
City: Tallahassee	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, 32301				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			Other:
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424			
Site: Plant Crist	SSOW#:			

400-121128 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)	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N	N	N	D	N	N		
MW-200	5-3-16	0907	G	Water	N	X	X	X	X	X	X		PH: 5.10
~~MW-201~~	~~5-3-16~~	~~1000~~	~~G~~	~~Water~~	~~N~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~PH: 5.06~~
MW-202	5-3-16	1540	G	Water	N	X	X	X	X	X	X		PH: 4.83
MW-203	5-3-16	1235	G	Water	N	X	X	X	X	X	X		PH: 4.78
MW-204	5-3-16	1135	G	Water	N	X	X	X	X	X	X		PH: 4.79
MW-205 5-3-16	~~5-3-16~~	~~1302~~ 1302	G	Water	N	X	X	X	X	X	X		PH: 5.77
MW-206	5-3-16	1611	G	Water	N	X	X	X	X	X	X		PH: 4.26
Dup-02	5-3-16	0807	G	W	N	X	X	X	X	X	X		PH: 5.10
EB-01	5-3-16	1255	G	W	N	X	X	X	X	X	X		
FB-01	5-3-16	1120	G	W	N	X	X	X	X	X	X		
MW-201	5-4-16	0905	G	W	N	X	X	X	X	X	X		PH: 5.62

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: 5-3-16 1645	Company: BDHENV.	Received by:	Date/Time: 5/5/16 1645	Company:
Relinquished by:	Date/Time: 5-4-16 1010	Company: BDHENV.	Received by: Carolyn Hopper	Date/Time: 5/4/16 1010	Company: TA Pensacola
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seal's Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.0C 0.0C IR-5

Page 56 of 57

6/8/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-121128-1
SDG Number: Gypsum Storage Area

Login Number: 121128
List Number: 1
Creator: Crawford, Lauren E

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	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	0.0°C, 0.0°C IR-5 19.7°C IR-2
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	

Certification Summary

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	07-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-17 *
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16 *
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16 *
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16 *
Nevada	State Program	9	MO000542016-1	07-31-16 *
New Jersey	NELAP	2	MO002	06-30-16 *
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16 *
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-121128-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-16 *
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16 *
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-121128-2
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
6/15/2016 8:44:26 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

Links

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 5
Sample Summary 6
Client Sample Results 7
Definitions 8
Chronicle 9
QC Association 10
QC Sample Results 11
Receipt Checklists 12
Certification Summary 13

Job ID: 400-121128-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-121128-2

Metals
Method(s) 3005A: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: MW-206 (400-121128-7). The reporting limits (RLs) have been adjusted proportionately. Sample re-digested/diluted due to high targets of Boron and Calcium.

Method(s) 6020: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-206 (400-121128-7). Elevated reporting limits (RLs) are provided.

Detection Summary

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

TestAmerica Job ID: 400-121128-2
SDG: Gypsum Storage Area

Client Sample ID: MW-206

Lab Sample ID: 400-121128-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - REDL2	74		10	4.2	mg/L	100		6020	Total Recoverable
Calcium - REDL2	2200		50	25	mg/L	100		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-121128-2
SDG: Gypsum Storage Area

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN

Protocol References:

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 Plant Crist

TestAmerica Job ID: 400-121128-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-121128-7	MW-206	Water	05/03/16 10:11	05/03/16 16:45

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

TestAmerica Job ID: 400-121128-2
SDG: Gypsum Storage Area

Client Sample ID: MW-206
Date Collected: 05/03/16 10:11
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - REDL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	74		10	4.2	mg/L		06/10/16 08:45	06/13/16 12:25	100
Calcium	2200		50	25	mg/L		06/10/16 08:45	06/13/16 12:25	100

Qualifiers

Metals

Qualifier	Qualifier Description
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-121128-2
SDG: Gypsum Storage Area

Client Sample ID: MW-206
Date Collected: 05/03/16 10:11
Date Received: 05/03/16 16:45

Lab Sample ID: 400-121128-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	REDL2		309439	06/10/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	REDL2	100	309819	06/13/16 12:25	RJB	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 309439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-7 - REDL2	MW-206	Total Recoverable	Water	3005A	
400-122751-B-1-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-122751-B-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-309439/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-309439/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 309544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-122751-B-1-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	309439
400-122751-B-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	309439
LCS 400-309439/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	309439
MB 400-309439/1-A ^5	Method Blank	Total Recoverable	Water	6020	309439

Analysis Batch: 309819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121128-7 - REDL2	MW-206	Total Recoverable	Water	6020	309439

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-309439/1-A ^5
Matrix: Water
Analysis Batch: 309544

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 309439

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		06/10/16 08:45	06/10/16 14:20	5
Calcium	0.13	U	0.25	0.13	mg/L		06/10/16 08:45	06/10/16 14:20	5

Lab Sample ID: LCS 400-309439/2-A ^1
Matrix: Water
Analysis Batch: 309544

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 309439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.112		mg/L		112	80 - 120
Calcium	5.00	5.43		mg/L		109	80 - 120

Lab Sample ID: 400-122751-B-1-C MS ^5
Matrix: Water
Analysis Batch: 309544

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 309439

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.020		0.100	0.187	J3	mg/L		166	75 - 125
Calcium	7.9		5.00	45.7	J3	mg/L		755	75 - 125

Lab Sample ID: 400-122751-B-1-D MSD ^5
Matrix: Water
Analysis Batch: 309544

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 309439

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.020		0.100	0.191	J3	mg/L		170	75 - 125	2	20
Calcium	7.9		5.00	45.6	J3	mg/L		753	75 - 125	0	20

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-121128-2
SDG Number: Gypsum Storage Area

Login Number: 121128
List Number: 1
Creator: Crawford, Lauren E

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.	True	
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	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	0.0°C, 0.0°C IR-5 19.7°C IR-2
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	

Certification Summary

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

TestAmerica Job ID: 400-121128-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	07-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-17 *
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-121183-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
6/8/2016 2:22:30 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 21
Chronicle 22
QC Association 25
QC Sample Results 29
Chain of Custody 37
Receipt Checklists 38
Certification Summary 39

Job ID: 400-121183-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-121183-1

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-250395: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchet was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-300 (400-121183-1), MW-303 (400-121183-2), MW-304 (400-121183-3), MW-305 (400-121183-4), MW-308 (400-121183-5) and DUP-03 (400-121183-6).

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 304980 and analytical batch 305489 were outside control limits for Boron. Sample matrix interference is 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-303 (400-121183-2), MW-304 (400-121183-3), MW-308 (400-121183-5) and DUP-03 (400-121183-6). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with batch 306427 was outside control limits due to sample results being less than 5X the reporting limit.: (400-121128-B-4 DU).

Detection Summary

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-121183-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0037		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00093	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.13				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-121183-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0024		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.00070	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.029		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0068		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00021	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	4.0		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	60		5.0	2.5	mg/L	100		6020	Total Recoverable
Molybdenum - DL	0.99		0.30	0.017	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	450		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	47		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.11		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	200		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.30				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-121183-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.019		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Chromium	0.0012	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.16		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00086	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0080		0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-121183-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00021	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	2.3		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	140		5.0	2.5	mg/L	100		6020	Total Recoverable
Mercury	0.00026		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1200		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	120		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	520		500	140	mg/L	100		SM 4500 SO4 E	Total/NA
Field pH	5.04				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-121183-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.060		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0025		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.13				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-121183-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.00056	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0049		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00026	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	5.9		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	90		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	690		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	63		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	280		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	6.34				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-121183-6

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: DUP-03 (Continued) — Lab Sample ID: 400-121183-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.020		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	130		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0012	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.17		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00092	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0084		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00022	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	1.6		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.00026		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1200		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	110		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	510		500	140	mg/L	100		SM 4500 SO4 E	Total/NA
Field pH	5.04				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-121183-1	MW-300	Water	05/04/16 11:10	05/04/16 14:27
400-121183-2	MW-303	Water	05/04/16 09:49	05/04/16 14:27
400-121183-3	MW-304	Water	05/04/16 07:16	05/04/16 14:27
400-121183-4	MW-305	Water	05/04/16 13:01	05/04/16 14:27
400-121183-5	MW-308	Water	05/04/16 08:48	05/04/16 14:27
400-121183-6	DUP-03	Water	05/04/16 06:16	05/04/16 14:27

Client Sample ID: MW-300

Date Collected: 05/04/16 11:10
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-1

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		05/09/16 08:45	05/10/16 15:15	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:15	5
Barium	**0.012**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:15	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:15	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 15:15	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:15	5
Calcium	**1.0**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 15:15	5
Chromium	**0.0037**		0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:15	5
Cobalt	**0.00093**	**I**	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:15	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:15	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:15	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 15:15	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:15	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:15	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		05/05/16 13:02	05/06/16 13:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**28**		5.0	3.4	mg/L			05/07/16 15:05	1
Chloride	**8.2**		2.0	0.60	mg/L			05/14/16 15:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/17/16 18:35	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:49	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.636**		0.115	0.128	1.00	0.0815	pCi/L	05/10/16 18:48	06/01/16 07:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.72**		0.581	0.725	1.00	0.467	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*82.2*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*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	**5.36**		0.592	0.736	5.00	0.467	pCi/L		06/02/16 10:41	1

Client Sample Results

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 05/04/16 11:10
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-1
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.13				SU			05/04/16 11:10	1

Client Sample ID: MW-303

Date Collected: 05/04/16 09:49
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-2

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		05/09/16 08:45	05/10/16 15:20	5
Arsenic	**0.0024**		0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:20	5
Barium	**0.025**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:20	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:20	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:20	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:20	5
Cobalt	**0.00070**	**I**	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:20	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:20	5
Lithium	**0.029**		0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:20	5
Selenium	**0.0068**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:20	5
Thallium	**0.00021**	**I**	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:20	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.0**		1.0	0.42	mg/L		05/09/16 08:45	05/10/16 17:04	100
Calcium	**60**		5.0	2.5	mg/L		05/09/16 08:45	05/10/16 17:04	100
Molybdenum	**0.99**		0.30	0.017	mg/L		05/09/16 08:45	05/10/16 17:04	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		05/05/16 13:02	05/06/16 14:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**450**		5.0	3.4	mg/L			05/07/16 15:05	1
Chloride	**47**		4.0	1.2	mg/L			05/14/16 16:18	2
Fluoride	**0.11**		0.10	0.032	mg/L			05/18/16 10:47	1
Sulfate	**200**		100	28	mg/L			05/17/16 13:55	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.741**		0.118	0.136	1.00	0.0643	pCi/L	05/10/16 18:48	06/01/16 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.78**		0.579	0.726	1.00	0.523	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*84.5*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-303
Date Collected: 05/04/16 09:49
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-2
Matrix: Water

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	5.52		0.590	0.739	5.00	0.523	pCi/L		06/02/16 10:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.30				SU			05/04/16 09:49	1

Client Sample ID: MW-304

Date Collected: 05/04/16 07:16
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-3

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		05/09/16 08:45	05/10/16 15:24	5
Arsenic	**0.019**		0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:24	5
Barium	**0.035**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:24	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:24	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:24	5
Chromium	**0.0012**	**I**	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:24	5
Cobalt	**0.16**		0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:24	5
Lead	**0.00086**	**I**	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:24	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:24	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 15:24	5
Selenium	**0.0080**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:24	5
Thallium	**0.00021**	**I**	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:24	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.3**		1.0	0.42	mg/L		05/09/16 08:45	05/10/16 17:08	100
Calcium	**140**		5.0	2.5	mg/L		05/09/16 08:45	05/10/16 17:08	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00026**		0.00020	0.000070	mg/L		05/05/16 13:02	05/06/16 14:05	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		5.0	3.4	mg/L			05/07/16 15:05	1
Chloride	**120**		10	3.0	mg/L			05/14/16 16:18	5
Fluoride	**0.19**		0.10	0.032	mg/L			05/18/16 10:50	1
Sulfate	**520**		500	140	mg/L			05/17/16 13:17	100

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**3.63**		0.267	0.422	1.00	0.0746	pCi/L	05/10/16 18:48	06/01/16 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.4*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**6.03**		0.659	0.861	1.00	0.484	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.4*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*83.4*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-304
Date Collected: 05/04/16 07:16
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-3
Matrix: Water

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	9.66		0.711	0.959	5.00	0.484	pCi/L		06/02/16 10:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.04				SU			05/04/16 07:16	1

Client Sample ID: MW-305

Date Collected: 05/04/16 13:01
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-4

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		05/09/16 08:45	05/10/16 15:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:29	5
Barium	**0.017**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:29	5
Boron	**0.060**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 15:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:29	5
Calcium	**1.1**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 15:29	5
Chromium	**0.0025**		0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:29	5
Cobalt	**0.0010**	**I**	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:29	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:29	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 15:29	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:29	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		05/05/16 13:02	05/06/16 14:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			05/07/16 15:05	1
Chloride	**7.0**		2.0	0.60	mg/L			05/14/16 15:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:53	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:49	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.543**		0.106	0.117	1.00	0.0688	pCi/L	05/10/16 18:48	06/01/16 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.5*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.637**		0.331	0.336	1.00	0.486	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.5*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*81.9*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*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	**1.18**		0.347	0.356	5.00	0.486	pCi/L		06/02/16 10:41	1

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-305
Date Collected: 05/04/16 13:01
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-4
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.13				SU			05/04/16 13:01	1

Client Sample ID: MW-308
Date Collected: 05/04/16 08:48
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-5
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		05/09/16 08:45	05/10/16 15:33	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:33	5
Barium	**0.029**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:33	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:33	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:33	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:33	5
Cobalt	**0.00056**	**I**	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:33	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:33	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:33	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 15:33	5
Selenium	**0.0049**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:33	5
Thallium	**0.00026**	**I**	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:33	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.9**		1.0	0.42	mg/L		05/09/16 08:45	05/10/16 17:13	100
Calcium	**90**		5.0	2.5	mg/L		05/09/16 08:45	05/10/16 17:13	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		05/05/16 13:02	05/06/16 14:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**690**		5.0	3.4	mg/L			05/07/16 15:05	1
Chloride	**63**		4.0	1.2	mg/L			05/14/16 16:18	2
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			05/18/16 11:00	1
Sulfate	**280**		250	70	mg/L			05/17/16 13:17	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.696**		0.126	0.140	1.00	0.101	pCi/L	05/10/16 18:48	06/01/16 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.4*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.88**		0.415	0.449	1.00	0.466	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.4*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*87.5*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 05/04/16 08:48
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-5
Matrix: Water

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	2.58		0.433	0.471	5.00	0.466	pCi/L		06/02/16 10:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.34				SU			05/04/16 08:48	1

Client Sample ID: DUP-03

Date Collected: 05/04/16 06:16
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-6

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		05/09/16 08:45	05/10/16 15:38	5
Arsenic	**0.020**		0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:38	5
Barium	**0.035**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:38	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:38	5
Calcium	**130**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 15:38	5
Chromium	**0.0012**	**I**	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:38	5
Cobalt	**0.17**		0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:38	5
Lead	**0.00092**	**I**	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 15:38	5
Selenium	**0.0084**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:38	5
Thallium	**0.00022**	**I**	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:38	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		1.0	0.42	mg/L		05/09/16 08:45	05/10/16 17:31	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00026**		0.00020	0.000070	mg/L		05/05/16 13:02	05/06/16 14:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		5.0	3.4	mg/L			05/07/16 15:05	1
Chloride	**110**		10	3.0	mg/L			05/14/16 16:18	5
Fluoride	**0.19**		0.10	0.032	mg/L			05/18/16 11:03	1
Sulfate	**510**		500	140	mg/L			05/17/16 13:17	100

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**3.87**		0.281	0.447	1.00	0.0664	pCi/L	05/10/16 18:48	06/01/16 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.2*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:25*	*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**		0.737	0.956	1.00	0.584	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.2*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*84.5*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: DUP-03

Date Collected: 05/04/16 06:16
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-6

Matrix: Water

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	10.5		0.789	1.06	5.00	0.584	pCi/L		06/02/16 10:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.04				SU			05/04/16 06:16	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 05/04/16 11:10
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:15	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305111	05/07/16 15:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306058	05/14/16 15:54	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306427	05/17/16 18:35	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:49	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250394	05/10/16 18:48	MCJ	TAL SL
Total/NA	Analysis	9315		1	254106	06/01/16 07:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250395	05/10/16 19:37	RTM	TAL SL
Total/NA	Analysis	9320		1	252038	05/19/16 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254237	06/02/16 10:41	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305583	05/04/16 11:10	BWS	TAL PEN

Client Sample ID: MW-303

Date Collected: 05/04/16 09:49
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:20	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305489	05/10/16 17:04	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 14:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305111	05/07/16 15:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	306058	05/14/16 16:18	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:47	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	306361	05/17/16 13:55	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250394	05/10/16 18:48	MCJ	TAL SL
Total/NA	Analysis	9315		1	254106	06/01/16 07:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250395	05/10/16 19:37	RTM	TAL SL
Total/NA	Analysis	9320		1	252038	05/19/16 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254237	06/02/16 10:41	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305583	05/04/16 09:49	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-304

Date Collected: 05/04/16 07:16
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:24	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305489	05/10/16 17:08	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 14:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305111	05/07/16 15:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	306058	05/14/16 16:18	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		100	306361	05/17/16 13:17	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250394	05/10/16 18:48	MCJ	TAL SL
Total/NA	Analysis	9315		1	254106	06/01/16 07:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250395	05/10/16 19:37	RTM	TAL SL
Total/NA	Analysis	9320		1	252038	05/19/16 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254237	06/02/16 10:41	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305583	05/04/16 07:16	BWS	TAL PEN

Client Sample ID: MW-305

Date Collected: 05/04/16 13:01
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:29	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305111	05/07/16 15:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306058	05/14/16 15:54	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:49	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250394	05/10/16 18:48	MCJ	TAL SL
Total/NA	Analysis	9315		1	254106	06/01/16 07:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250395	05/10/16 19:37	RTM	TAL SL
Total/NA	Analysis	9320		1	252038	05/19/16 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254237	06/02/16 10:41	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305583	05/04/16 13:01	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Client Sample ID: MW-308

Date Collected: 05/04/16 08:48
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:33	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305489	05/10/16 17:13	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 14:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305111	05/07/16 15:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	306058	05/14/16 16:18	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 11:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	306361	05/17/16 13:17	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250394	05/10/16 18:48	MCJ	TAL SL
Total/NA	Analysis	9315		1	254106	06/01/16 07:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250395	05/10/16 19:37	RTM	TAL SL
Total/NA	Analysis	9320		1	252038	05/19/16 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254237	06/02/16 10:41	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305583	05/04/16 08:48	BWS	TAL PEN

Client Sample ID: DUP-03

Date Collected: 05/04/16 06:16
Date Received: 05/04/16 14:27

Lab Sample ID: 400-121183-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:38	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305489	05/10/16 17:31	RJB	TAL PEN
Total/NA	Prep	7470A			304747	05/05/16 13:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	304989	05/06/16 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305111	05/07/16 15:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	306058	05/14/16 16:18	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 11:03	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		100	306361	05/17/16 13:17	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250394	05/10/16 18:48	MCJ	TAL SL
Total/NA	Analysis	9315		1	254106	06/01/16 07:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250395	05/10/16 19:37	RTM	TAL SL
Total/NA	Analysis	9320		1	252038	05/19/16 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254237	06/02/16 10:41	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305583	05/04/16 06:16	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 304747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	7470A	
400-121183-2	MW-303	Total/NA	Water	7470A	
400-121183-3	MW-304	Total/NA	Water	7470A	
400-121183-4	MW-305	Total/NA	Water	7470A	
400-121183-5	MW-308	Total/NA	Water	7470A	
400-121183-6	DUP-03	Total/NA	Water	7470A	
400-121185-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-121185-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
LCS 400-304747/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-304747/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 304980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total Recoverable	Water	3005A	
400-121183-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-121183-2	MW-303	Total Recoverable	Water	3005A	
400-121183-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-121183-3	MW-304	Total Recoverable	Water	3005A	
400-121183-4	MW-305	Total Recoverable	Water	3005A	
400-121183-5	MW-308	Total Recoverable	Water	3005A	
400-121183-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-121183-6	DUP-03	Total Recoverable	Water	3005A	
400-121183-6 - DL	DUP-03	Total Recoverable	Water	3005A	
490-102817-D-7-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
490-102817-D-7-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-304980/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-304980/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 304989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	7470A	304747
400-121183-2	MW-303	Total/NA	Water	7470A	304747
400-121183-3	MW-304	Total/NA	Water	7470A	304747
400-121183-4	MW-305	Total/NA	Water	7470A	304747
400-121183-5	MW-308	Total/NA	Water	7470A	304747
400-121183-6	DUP-03	Total/NA	Water	7470A	304747
400-121185-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	304747
400-121185-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	304747
LCS 400-304747/15-A	Lab Control Sample	Total/NA	Water	7470A	304747
MB 400-304747/14-A	Method Blank	Total/NA	Water	7470A	304747

Analysis Batch: 305489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total Recoverable	Water	6020	304980
400-121183-2	MW-303	Total Recoverable	Water	6020	304980
400-121183-2 - DL	MW-303	Total Recoverable	Water	6020	304980
400-121183-3	MW-304	Total Recoverable	Water	6020	304980
400-121183-3 - DL	MW-304	Total Recoverable	Water	6020	304980
400-121183-4	MW-305	Total Recoverable	Water	6020	304980
400-121183-5	MW-308	Total Recoverable	Water	6020	304980
400-121183-5 - DL	MW-308	Total Recoverable	Water	6020	304980

Metals (Continued)

Analysis Batch: 305489 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-6	DUP-03	Total Recoverable	Water	6020	304980
400-121183-6 - DL	DUP-03	Total Recoverable	Water	6020	304980
490-102817-D-7-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	304980
490-102817-D-7-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	304980
LCS 400-304980/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304980
MB 400-304980/1-A ^5	Method Blank	Total Recoverable	Water	6020	304980
MRL 400-305489/18	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 305111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121156-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	
400-121183-1	MW-300	Total/NA	Water	SM 2540C	
400-121183-2	MW-303	Total/NA	Water	SM 2540C	
400-121183-3	MW-304	Total/NA	Water	SM 2540C	
400-121183-4	MW-305	Total/NA	Water	SM 2540C	
400-121183-5	MW-308	Total/NA	Water	SM 2540C	
400-121183-6	DUP-03	Total/NA	Water	SM 2540C	
LCS 400-305111/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-305111/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 306058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-121183-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-121183-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-121183-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-121183-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-121183-6	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-121459-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-121459-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-121494-A-1 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-306058/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-306058/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 306361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-121183-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-121183-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-121183-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-121183-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-121183-6	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-121272-A-2 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-121610-H-11 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-121610-H-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-306361/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-306361/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 306427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121119-B-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-121119-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-121128-B-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	
400-121183-1	MW-300	Total/NA	Water	SM 4500 F C	
LCS 400-306427/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306427/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 306489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-2	MW-303	Total/NA	Water	SM 4500 F C	
400-121183-3	MW-304	Total/NA	Water	SM 4500 F C	
400-121183-4	MW-305	Total/NA	Water	SM 4500 F C	
400-121183-5	MW-308	Total/NA	Water	SM 4500 F C	
400-121183-6	DUP-03	Total/NA	Water	SM 4500 F C	
400-121274-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-121274-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-121274-A-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-306489/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306489/3	Method Blank	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 250394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	PrecSep-21	
400-121183-2	MW-303	Total/NA	Water	PrecSep-21	
400-121183-3	MW-304	Total/NA	Water	PrecSep-21	
400-121183-4	MW-305	Total/NA	Water	PrecSep-21	
400-121183-5	MW-308	Total/NA	Water	PrecSep-21	
400-121183-6	DUP-03	Total/NA	Water	PrecSep-21	
400-121328-A-6-I MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
400-121328-B-6-H MS	Matrix Spike	Total/NA	Water	PrecSep-21	
LCS 160-250394/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-250394/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 250395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	PrecSep_0	
400-121183-2	MW-303	Total/NA	Water	PrecSep_0	
400-121183-3	MW-304	Total/NA	Water	PrecSep_0	
400-121183-4	MW-305	Total/NA	Water	PrecSep_0	
400-121183-5	MW-308	Total/NA	Water	PrecSep_0	
400-121183-6	DUP-03	Total/NA	Water	PrecSep_0	
400-121328-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
400-121328-B-6-F MS	Matrix Spike	Total/NA	Water	PrecSep_0	
LCS 160-250395/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-250395/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 305583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121183-1	MW-300	Total/NA	Water	Field Sampling	
400-121183-2	MW-303	Total/NA	Water	Field Sampling	
400-121183-3	MW-304	Total/NA	Water	Field Sampling	
400-121183-4	MW-305	Total/NA	Water	Field Sampling	
400-121183-5	MW-308	Total/NA	Water	Field Sampling	
400-121183-6	DUP-03	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-305489/18
Matrix: Water
Analysis Batch: 305489

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.250	0.33	U	ug/L		91	50 - 150
Barium	0.500	0.478	I	ug/L		96	50 - 150
Beryllium	0.250	0.249	I	ug/L		100	50 - 150
Boron	5.00	18	U	ug/L		63	50 - 150
Cadmium	0.250	0.274	I	ug/L		110	50 - 150
Calcium	50.0	130	U	ug/L		112	50 - 150
Chromium	0.500	0.498	I	ug/L		100	50 - 150
Cobalt	0.500	0.498	I	ug/L		100	50 - 150
Lead	0.250	0.33	U	ug/L		88	50 - 150
Lithium	0.500	1.6	U	ug/L		63	50 - 150
Molybdenum	0.500	0.423	I	ug/L		85	50 - 150
Selenium	0.250	0.23	U	ug/L		68	50 - 150
Thallium	0.100	0.0960	I	ug/L		96	50 - 150

Lab Sample ID: MB 400-304980/1-A ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/09/16 08:45	05/10/16 13:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 13:18	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 13:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 13:18	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 13:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 13:18	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 13:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 13:18	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 13:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 13:18	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 13:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 13:18	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 13:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 13:18	5

Lab Sample ID: LCS 400-304980/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Arsenic	0.0500	0.0520		mg/L		104	80 - 120
Barium	0.0500	0.0463		mg/L		93	80 - 120
Beryllium	0.0500	0.0476		mg/L		95	80 - 120
Boron	0.100	0.0966		mg/L		97	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120
Calcium	5.00	4.95		mg/L		99	80 - 120
Chromium	0.0500	0.0503		mg/L		101	80 - 120
Cobalt	0.0500	0.0481		mg/L		96	80 - 120

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

Lab Sample ID: LCS 400-304980/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0500	0.0484		mg/L		97	80 - 120
Lithium	0.0500	0.0504		mg/L		101	80 - 120
Molybdenum	0.0500	0.0487		mg/L		97	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.00996		mg/L		100	80 - 120

Lab Sample ID: 490-102817-D-7-B MS ^25
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0528		mg/L		106	75 - 125
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125
Barium	0.023		0.0500	0.0695		mg/L		93	75 - 125
Beryllium	0.00034	U	0.0500	0.0480		mg/L		96	75 - 125
Boron	0.067		0.100	0.131	I J3	mg/L		64	75 - 125
Cadmium	0.00034	U	0.0500	0.0536		mg/L		107	75 - 125
Calcium	11		5.00	15.6		mg/L		97	75 - 125
Chromium	0.0075		0.0500	0.0600		mg/L		105	75 - 125
Cobalt	0.00040	U	0.0500	0.0494		mg/L		99	75 - 125
Lead	0.00062	I	0.0500	0.0485		mg/L		96	75 - 125
Lithium	0.0032	U	0.0500	0.0511		mg/L		102	75 - 125
Molybdenum	0.00085	U	0.0500	0.0497	I	mg/L		99	75 - 125
Selenium	0.0032		0.0500	0.0509		mg/L		95	75 - 125
Thallium	0.000085	U	0.0100	0.00995		mg/L		100	75 - 125

Lab Sample ID: 490-102817-D-7-C MSD ^25
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 304980

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	0.0514		mg/L		103	75 - 125	3	20
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125	0	20
Barium	0.023		0.0500	0.0713		mg/L		97	75 - 125	3	20
Beryllium	0.00034	U	0.0500	0.0481		mg/L		96	75 - 125	0	20
Boron	0.067		0.100	0.122	I J3	mg/L		55	75 - 125	7	20
Cadmium	0.00034	U	0.0500	0.0562		mg/L		112	75 - 125	5	20
Calcium	11		5.00	16.4		mg/L		113	75 - 125	5	20
Chromium	0.0075		0.0500	0.0591		mg/L		103	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125	1	20
Lead	0.00062	I	0.0500	0.0495		mg/L		98	75 - 125	2	20
Lithium	0.0032	U	0.0500	0.0536		mg/L		107	75 - 125	5	20
Molybdenum	0.00085	U	0.0500	0.0501	I	mg/L		100	75 - 125	1	20
Selenium	0.0032		0.0500	0.0522		mg/L		98	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.0103		mg/L		103	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-304747/14-A
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304747

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/05/16 09:26	05/06/16 13:08	1

Lab Sample ID: LCS 400-304747/15-A
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304747

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.000971		mg/L		96	80 - 120		

Lab Sample ID: 400-121185-A-3-B MS
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 304747

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.00044		0.00201	0.00214		mg/L		84	80 - 120		

Lab Sample ID: 400-121185-A-3-C MSD
Matrix: Water
Analysis Batch: 304989

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 304747

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00044		0.00201	0.00215		mg/L		84	80 - 120	0	20

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

Lab Sample ID: MB 400-305111/1
Matrix: Water
Analysis Batch: 305111

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			05/07/16 15:05	1

Lab Sample ID: LCS 400-305111/2
Matrix: Water
Analysis Batch: 305111

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	274		mg/L		94	78 - 122		

Lab Sample ID: 400-121156-A-3 DU
Matrix: Water
Analysis Batch: 305111

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

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-306058/6
Matrix: Water
Analysis Batch: 306058

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/14/16 15:40	1

Lab Sample ID: LCS 400-306058/7
Matrix: Water
Analysis Batch: 306058

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	31.1		mg/L		104	90 - 110

Lab Sample ID: 400-121459-D-1 MS
Matrix: Water
Analysis Batch: 306058

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	13		10.0	23.0		mg/L		96	73 - 120

Lab Sample ID: 400-121459-D-1 MSD
Matrix: Water
Analysis Batch: 306058

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	13		10.0	23.0		mg/L		96	73 - 120	0	8

Lab Sample ID: 400-121494-A-1 DU
Matrix: Water
Analysis Batch: 306058

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	230		237		mg/L		3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-306427/3
Matrix: Water
Analysis Batch: 306427

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			05/17/16 17:33	1

Lab Sample ID: LCS 400-306427/4
Matrix: Water
Analysis Batch: 306427

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	4.28		mg/L		107	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-121119-B-2 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306427

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.032	U	1.00	1.03		mg/L		103	75 - 125

Lab Sample ID: 400-121119-B-2 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306427

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	0.990		mg/L		99	75 - 125	4	4

Lab Sample ID: 400-121128-B-4 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306427

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.050	I	0.0600	I J3	mg/L		18	4

Lab Sample ID: MB 400-306489/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306489

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 09:48	1

Lab Sample ID: LCS 400-306489/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.28		mg/L		107	90 - 110

Lab Sample ID: 400-121274-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.032	U	1.00	1.05		mg/L		105	75 - 125

Lab Sample ID: 400-121274-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306489

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	1.03		mg/L		103	75 - 125	2	4

Lab Sample ID: 400-121274-A-4 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306489

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.27		0.270		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-306361/6
Matrix: Water
Analysis Batch: 306361

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			05/17/16 12:29	1

Lab Sample ID: LCS 400-306361/7
Matrix: Water
Analysis Batch: 306361

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: 400-121610-H-11 MS
Matrix: Water
Analysis Batch: 306361

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	1.4	U	10.0	9.31		mg/L		93	77 - 128		

Lab Sample ID: 400-121610-H-11 MSD
Matrix: Water
Analysis Batch: 306361

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	1.4	U	10.0	9.62		mg/L		96	77 - 128	3	5

Lab Sample ID: 400-121272-A-2 DU
Matrix: Water
Analysis Batch: 306361

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	1.4	U		1.4	U	mg/L				NC	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-250394/1-A
Matrix: Water
Analysis Batch: 254106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250394

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05866	U	0.0549	0.0552	1.00	0.0864	pCi/L	05/10/16 18:48	06/01/16 07:24	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*05/10/16 18:48*	*06/01/16 07:24*	*1*

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

Lab Sample ID: LCS 160-250394/2-A
Matrix: Water
Analysis Batch: 254106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250394

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	14.49		1.40	1.00	0.0645	pCi/L	130	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*76.6*		*40 - 110*

Lab Sample ID: 400-121328-A-6-I MSD
Matrix: Water
Analysis Batch: 254106

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 250394

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	2.32		11.2	15.32		1.48	1.00	0.0911	pCi/L	117	75 - 138	0.26	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*72.6*		*40 - 110*

Lab Sample ID: 400-121328-B-6-H MS
Matrix: Water
Analysis Batch: 254106

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 250394

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	2.32		11.2	16.11		1.56	1.00	0.113	pCi/L	124	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*68.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-250395/1-A
Matrix: Water
Analysis Batch: 252038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250395

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1227	U	0.259	0.259	1.00	0.444	pCi/L	05/10/16 19:37	05/19/16 14:16	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*
Y Carrier	*90.8*		*40 - 110*	*05/10/16 19:37*	*05/19/16 14:16*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-250395/2-A
Matrix: Water
Analysis Batch: 252038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250395

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	16.23		1.80	1.00	0.493	pCi/L	107	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*76.6*		*40 - 110*
Y Carrier	*81.9*		*40 - 110*

Lab Sample ID: 400-121328-A-6-H MSD
Matrix: Water
Analysis Batch: 252038

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 250395

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	1.64		15.1	20.42		2.19	1.00	0.551	pCi/L	124	45 - 150	0.37	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*72.6*		*40 - 110*
Y Carrier	*83.4*		*40 - 110*

Lab Sample ID: 400-121328-B-6-F MS
Matrix: Water
Analysis Batch: 252038

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 250395

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	1.64		15.1	18.88		2.04	1.00	0.494	pCi/L	114	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*68.1*		*40 - 110*
Y Carrier	*92.3*		*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 Sweets	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53457-23629.1
Client Contact: Carl Eldred	Phone: 850 380 3458	E-Mail: cheyenne whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams		Analysis Requested		Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:			Preservation Codes:
City: Tallahassee	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, 32301				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			Other:
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist Landfill 2	Project #: 40005424			
Site:	SSOW#:			

400-121183 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)	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	X	X	X	X	X	X	
MW-300	5/4/16	1110	G	Water		X	X	X	X	X	X		Ph 5.13
MW-303	5/4/16	0949	G	Water									6.30
MW-304	5/4/16	0716	G	Water									5.04
MW-305	5/4/16	1301	G	Water									5.13
MW-308	5/4/16	0848	G	Water									6.34
Dup-03	5/4/16	0616	G	Water		X	X	X	X	X	X		5.04

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
	5/4/16 1427	JDH		5/4/16 1427	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: 1.6°C IR-2

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-121183-1
SDG Number: Landfill 2

Login Number: 121183
List Number: 1
Creator: Benforado, Jessica L

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	1.6°C IR-2
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	

Certification Summary

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	07-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-17 *
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16 *
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16 *
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16 *
Nevada	State Program	9	MO000542016-1	07-31-16 *
New Jersey	NELAP	2	MO002	06-30-16 *
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16 *
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-121183-1
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-16 *
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16 *
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-121272-1
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
6/8/2016 2:37:14 PM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 5
Sample Summary 6
Client Sample Results 7
Definitions 13
Chronicle 14
QC Association 17
QC Sample Results 20
Chain of Custody 27
Receipt Checklists 28
Certification Summary 29

Job ID: 400-121272-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-121272-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 250664: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchette was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. FB-02 (400-121272-1), FB-03 (400-121272-2), EB-02 (400-121272-3), EB-03 (400-121272-4) and DUP-04 (400-121272-5)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-250663: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchette was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. FB-02 (400-121272-1), FB-03 (400-121272-2), EB-02 (400-121272-3), EB-03 (400-121272-4) and DUP-04 (400-121272-5)

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 304980 and analytical batch 305489 were outside control limits for Boron. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

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

TestAmerica Job ID: 400-121272-1

Client Sample ID: FB-02 — Lab Sample ID: 400-121272-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.077		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FB-03 — Lab Sample ID: 400-121272-2

No Detections.

Client Sample ID: EB-02 — Lab Sample ID: 400-121272-3

No Detections.

Client Sample ID: EB-03 — Lab Sample ID: 400-121272-4

No Detections.

Client Sample ID: DUP-04 — Lab Sample ID: 400-121272-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.19		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0042		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.78				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-121272-1

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-121272-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-121272-1	FB-02	Water	05/04/16 14:40	05/05/16 14:05
400-121272-2	FB-03	Water	05/05/16 09:20	05/05/16 14:05
400-121272-3	EB-02	Water	05/04/16 10:53	05/05/16 14:05
400-121272-4	EB-03	Water	05/05/16 09:40	05/05/16 14:05
400-121272-5	DUP-04	Water	05/05/16 10:47	05/05/16 14:05

Client Sample ID: FB-02
Date Collected: 05/04/16 14:40
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-1
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		05/09/16 08:45	05/10/16 15:42	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 15:42	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 15:42	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:42	5
Boron	**0.077**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 15:42	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 15:42	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 15:42	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 15:42	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 15:42	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 15:42	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 15:42	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 15:42	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 15:42	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 15:42	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		05/05/16 16:46	05/10/16 14:42	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**16**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:01	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:56	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0488	U	0.0356	0.0359	1.00	0.0502	pCi/L	05/11/16 18:00	06/02/16 07:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.1*		*40 - 110*	*05/11/16 18:00*	*06/02/16 07:54*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.113	U	0.474	0.474	1.00	0.824	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*87.5*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	0.162	U	0.475	0.475	5.00	0.824	pCi/L		06/05/16 23:05	1

Client Sample ID: FB-03

Date Collected: 05/05/16 09:20
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-2

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		05/09/16 08:45	05/10/16 16:00	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 16:00	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 16:00	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:00	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 16:00	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:00	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 16:00	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 16:00	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 16:00	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 16:00	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 16:00	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 16:00	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 16:00	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 16:00	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		05/05/16 16:46	05/10/16 14:44	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			05/10/16 16:39	1
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:06	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:56	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0376	U	0.0503	0.0504	1.00	0.0842	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*60.7*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.147	U	0.429	0.430	1.00	0.743	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*92.7*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	0.185	U	0.432	0.433	5.00	0.743	pCi/L		06/05/16 23:05	1

Client Sample ID: EB-02
Date Collected: 05/04/16 10:53
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-3
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		05/09/16 08:45	05/10/16 16:05	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 16:05	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 16:05	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:05	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 16:05	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:05	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 16:05	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 16:05	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 16:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 16:05	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 16:05	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 16:05	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 16:05	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 16:05	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		05/05/16 16:46	05/10/16 14:45	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			05/10/16 16:39	1
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:09	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:56	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0524	U	0.0579	0.0581	1.00	0.0943	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*52.1*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0330	U	0.401	0.401	1.00	0.716	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*86.0*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	0.0854	U	0.405	0.405	5.00	0.716	pCi/L		06/05/16 23:05	1

Client Sample ID: EB-03
Date Collected: 05/05/16 09:40
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-4
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		05/09/16 08:45	05/10/16 16:09	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 16:09	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 16:09	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:09	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 16:09	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:09	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 16:09	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 16:09	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 16:09	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 16:09	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 16:09	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 16:09	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 16:09	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 16:09	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		05/05/16 16:46	05/10/16 14:47	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			05/10/16 16:39	1
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:12	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:56	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0581	U	0.0477	0.0480	1.00	0.0727	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*62.7*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.222	U	0.452	0.452	1.00	0.769	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*92.7*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	0.280	U	0.454	0.455	5.00	0.769	pCi/L		06/05/16 23:05	1

Client Sample ID: DUP-04
Date Collected: 05/05/16 10:47
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-5
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		05/09/16 08:45	05/10/16 16:31	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 16:31	5
Barium	**0.019**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 16:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:31	5
Boron	**0.19**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 16:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:31	5
Calcium	**2.7**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 16:31	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 16:31	5
Cobalt	**0.0042**		0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 16:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 16:31	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 16:31	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 16:31	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 16:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 16:31	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		05/05/16 16:46	05/10/16 14:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**28**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**6.7**		2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:16	1
Sulfate	**15**		10	2.8	mg/L			05/17/16 13:13	2

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.542**		0.0906	0.103	1.00	0.0680	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.6*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.595	U	0.471	0.474	1.00	0.747	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*90.8*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	**1.14**		0.480	0.485	5.00	0.747	pCi/L		06/05/16 23:05	1

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

TestAmerica Job ID: 400-121272-1

Client Sample ID: DUP-04
Date Collected: 05/05/16 10:47
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-5
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.78				SU			05/05/16 10:47	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

Qualifier	Qualifier Description
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-121272-1

Client Sample ID: FB-02

Lab Sample ID: 400-121272-1

Date Collected: 05/04/16 14:40

Matrix: Water

Date Received: 05/05/16 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 15:42	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:01	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:56	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254480	06/02/16 07:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL

Client Sample ID: FB-03

Lab Sample ID: 400-121272-2

Date Collected: 05/05/16 09:20

Matrix: Water

Date Received: 05/05/16 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 16:00	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:56	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL

Client Sample ID: EB-02

Lab Sample ID: 400-121272-3

Date Collected: 05/04/16 10:53

Matrix: Water

Date Received: 05/05/16 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 16:05	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:45	JAP	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121272-1

Client Sample ID: EB-02

Lab Sample ID: 400-121272-3

Date Collected: 05/04/16 10:53

Matrix: Water

Date Received: 05/05/16 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:09	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:56	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL

Client Sample ID: EB-03

Lab Sample ID: 400-121272-4

Date Collected: 05/05/16 09:40

Matrix: Water

Date Received: 05/05/16 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 16:09	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:12	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:56	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL

Client Sample ID: DUP-04

Lab Sample ID: 400-121272-5

Date Collected: 05/05/16 10:47

Matrix: Water

Date Received: 05/05/16 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 16:31	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	306361	05/17/16 13:13	LSS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121272-1

Client Sample ID: DUP-04

Date Collected: 05/05/16 10:47
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121272-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 10:47	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 304855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121252-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-121252-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
400-121272-1	FB-02	Total/NA	Water	7470A	
400-121272-2	FB-03	Total/NA	Water	7470A	
400-121272-3	EB-02	Total/NA	Water	7470A	
400-121272-4	EB-03	Total/NA	Water	7470A	
400-121272-5	DUP-04	Total/NA	Water	7470A	
LCS 400-304855/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-304855/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 304980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total Recoverable	Water	3005A	
400-121272-2	FB-03	Total Recoverable	Water	3005A	
400-121272-3	EB-02	Total Recoverable	Water	3005A	
400-121272-4	EB-03	Total Recoverable	Water	3005A	
400-121272-5	DUP-04	Total Recoverable	Water	3005A	
490-102817-D-7-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
490-102817-D-7-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-304980/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-304980/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 305424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121252-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	304855
400-121252-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	304855
400-121272-1	FB-02	Total/NA	Water	7470A	304855
400-121272-2	FB-03	Total/NA	Water	7470A	304855
400-121272-3	EB-02	Total/NA	Water	7470A	304855
400-121272-4	EB-03	Total/NA	Water	7470A	304855
400-121272-5	DUP-04	Total/NA	Water	7470A	304855
LCS 400-304855/15-A	Lab Control Sample	Total/NA	Water	7470A	304855
MB 400-304855/14-A	Method Blank	Total/NA	Water	7470A	304855

Analysis Batch: 305489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total Recoverable	Water	6020	304980
400-121272-2	FB-03	Total Recoverable	Water	6020	304980
400-121272-3	EB-02	Total Recoverable	Water	6020	304980
400-121272-4	EB-03	Total Recoverable	Water	6020	304980
400-121272-5	DUP-04	Total Recoverable	Water	6020	304980
490-102817-D-7-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	304980
490-102817-D-7-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	304980
LCS 400-304980/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304980
MB 400-304980/1-A ^5	Method Blank	Total Recoverable	Water	6020	304980
MRL 400-305489/18	Lab Control Sample	Total/NA	Water	6020	

General Chemistry

Analysis Batch: 305433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total/NA	Water	SM 2540C	
400-121272-2	FB-03	Total/NA	Water	SM 2540C	
400-121272-3	EB-02	Total/NA	Water	SM 2540C	
400-121272-4	EB-03	Total/NA	Water	SM 2540C	
400-121272-4 DU	EB-03	Total/NA	Water	SM 2540C	
400-121272-5	DUP-04	Total/NA	Water	SM 2540C	
LCS 400-305433/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-305433/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 306308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-121272-2	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-121272-3	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-121272-4	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-121272-5	DUP-04	Total/NA	Water	SM 4500 Cl- E	
400-121274-A-1 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-121584-G-5 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-121584-G-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-306308/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-306308/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 306361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-121272-2	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-121272-2 DU	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-121272-3	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-121272-4	EB-03	Total/NA	Water	SM 4500 SO4 E	
400-121272-5	DUP-04	Total/NA	Water	SM 4500 SO4 E	
400-121610-H-11 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-121610-H-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-306361/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-306361/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 306489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total/NA	Water	SM 4500 F C	
400-121272-2	FB-03	Total/NA	Water	SM 4500 F C	
400-121272-3	EB-02	Total/NA	Water	SM 4500 F C	
400-121272-4	EB-03	Total/NA	Water	SM 4500 F C	
400-121272-5	DUP-04	Total/NA	Water	SM 4500 F C	
400-121274-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-121274-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-121274-A-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	
LCS 400-306489/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306489/3	Method Blank	Total/NA	Water	SM 4500 F C	

QC Association Summary

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

TestAmerica Job ID: 400-121272-1

Rad

Prep Batch: 250663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total/NA	Water	PrecSep-21	
400-121272-2	FB-03	Total/NA	Water	PrecSep-21	
400-121272-3	EB-02	Total/NA	Water	PrecSep-21	
400-121272-4	EB-03	Total/NA	Water	PrecSep-21	
400-121272-5	DUP-04	Total/NA	Water	PrecSep-21	
LCS 160-250663/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-250663/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-250663/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 253318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-1	FB-02	Total/NA	Water	PrecSep_0	
400-121272-2	FB-03	Total/NA	Water	PrecSep_0	
400-121272-3	EB-02	Total/NA	Water	PrecSep_0	
400-121272-4	EB-03	Total/NA	Water	PrecSep_0	
400-121272-5	DUP-04	Total/NA	Water	PrecSep_0	
LCS 160-253318/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-253318/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-253318/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 305363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-5	DUP-04	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-305489/18
Matrix: Water
Analysis Batch: 305489

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.250	0.33	U	ug/L		91	50 - 150
Barium	0.500	0.478	I	ug/L		96	50 - 150
Beryllium	0.250	0.249	I	ug/L		100	50 - 150
Boron	5.00	18	U	ug/L		63	50 - 150
Cadmium	0.250	0.274	I	ug/L		110	50 - 150
Calcium	50.0	130	U	ug/L		112	50 - 150
Chromium	0.500	0.498	I	ug/L		100	50 - 150
Cobalt	0.500	0.498	I	ug/L		100	50 - 150
Lead	0.250	0.33	U	ug/L		88	50 - 150
Lithium	0.500	1.6	U	ug/L		63	50 - 150
Molybdenum	0.500	0.423	I	ug/L		85	50 - 150
Selenium	0.250	0.23	U	ug/L		68	50 - 150
Thallium	0.100	0.0960	I	ug/L		96	50 - 150

Lab Sample ID: MB 400-304980/1-A ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/09/16 08:45	05/10/16 13:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 13:18	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 13:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 13:18	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 13:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 13:18	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 13:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 13:18	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 13:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 13:18	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 13:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 13:18	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 13:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 13:18	5

Lab Sample ID: LCS 400-304980/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Arsenic	0.0500	0.0520		mg/L		104	80 - 120
Barium	0.0500	0.0463		mg/L		93	80 - 120
Beryllium	0.0500	0.0476		mg/L		95	80 - 120
Boron	0.100	0.0966		mg/L		97	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120
Calcium	5.00	4.95		mg/L		99	80 - 120
Chromium	0.0500	0.0503		mg/L		101	80 - 120
Cobalt	0.0500	0.0481		mg/L		96	80 - 120

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

Lab Sample ID: LCS 400-304980/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0500	0.0484		mg/L		97	80 - 120
Lithium	0.0500	0.0504		mg/L		101	80 - 120
Molybdenum	0.0500	0.0487		mg/L		97	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.00996		mg/L		100	80 - 120

Lab Sample ID: 490-102817-D-7-B MS ^25
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0528		mg/L		106	75 - 125
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125
Barium	0.023		0.0500	0.0695		mg/L		93	75 - 125
Beryllium	0.00034	U	0.0500	0.0480		mg/L		96	75 - 125
Boron	0.067		0.100	0.131	I J3	mg/L		64	75 - 125
Cadmium	0.00034	U	0.0500	0.0536		mg/L		107	75 - 125
Calcium	11		5.00	15.6		mg/L		97	75 - 125
Chromium	0.0075		0.0500	0.0600		mg/L		105	75 - 125
Cobalt	0.00040	U	0.0500	0.0494		mg/L		99	75 - 125
Lead	0.00062	I	0.0500	0.0485		mg/L		96	75 - 125
Lithium	0.0032	U	0.0500	0.0511		mg/L		102	75 - 125
Molybdenum	0.00085	U	0.0500	0.0497	I	mg/L		99	75 - 125
Selenium	0.0032		0.0500	0.0509		mg/L		95	75 - 125
Thallium	0.000085	U	0.0100	0.00995		mg/L		100	75 - 125

Lab Sample ID: 490-102817-D-7-C MSD ^25
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 304980

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	0.0514		mg/L		103	75 - 125	3	20
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125	0	20
Barium	0.023		0.0500	0.0713		mg/L		97	75 - 125	3	20
Beryllium	0.00034	U	0.0500	0.0481		mg/L		96	75 - 125	0	20
Boron	0.067		0.100	0.122	I J3	mg/L		55	75 - 125	7	20
Cadmium	0.00034	U	0.0500	0.0562		mg/L		112	75 - 125	5	20
Calcium	11		5.00	16.4		mg/L		113	75 - 125	5	20
Chromium	0.0075		0.0500	0.0591		mg/L		103	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125	1	20
Lead	0.00062	I	0.0500	0.0495		mg/L		98	75 - 125	2	20
Lithium	0.0032	U	0.0500	0.0536		mg/L		107	75 - 125	5	20
Molybdenum	0.00085	U	0.0500	0.0501	I	mg/L		100	75 - 125	1	20
Selenium	0.0032		0.0500	0.0522		mg/L		98	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.0103		mg/L		103	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-304855/14-A
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304855

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/05/16 16:38	05/10/16 14:02	1

Lab Sample ID: LCS 400-304855/15-A
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304855

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00103		mg/L		102	80 - 120

Lab Sample ID: 400-121252-B-1-B MS
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 304855

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00197		mg/L		98	80 - 120

Lab Sample ID: 400-121252-B-1-C MSD
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 304855

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	0.00189		mg/L		94	80 - 120	4	20

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

Lab Sample ID: MB 400-305433/1
Matrix: Water
Analysis Batch: 305433

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			05/10/16 16:39	1

Lab Sample ID: LCS 400-305433/2
Matrix: Water
Analysis Batch: 305433

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	298		mg/L		102	78 - 122

Lab Sample ID: 400-121272-4 DU
Matrix: Water
Analysis Batch: 305433

Client Sample ID: EB-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3.4	U	4.00	I	mg/L		NC	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-306308/6
Matrix: Water
Analysis Batch: 306308

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 08:23	1

Lab Sample ID: LCS 400-306308/7
Matrix: Water
Analysis Batch: 306308

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: 400-121584-G-5 MS
Matrix: Water
Analysis Batch: 306308

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	0.60	U	10.0	11.0		mg/L		110	73 - 120		

Lab Sample ID: 400-121584-G-5 MSD
Matrix: Water
Analysis Batch: 306308

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	0.60	U	10.0	10.8		mg/L		108	73 - 120	2	8

Lab Sample ID: 400-121274-A-1 DU
Matrix: Water
Analysis Batch: 306308

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	4.5		4.49		mg/L		0.08	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-306489/3
Matrix: Water
Analysis Batch: 306489

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			05/18/16 09:48	1

Lab Sample ID: LCS 400-306489/4
Matrix: Water
Analysis Batch: 306489

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	4.28		mg/L		107	90 - 110		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-121274-A-1 MS
Matrix: Water
Analysis Batch: 306489

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	1.05		mg/L		105	75 - 125

Lab Sample ID: 400-121274-A-1 MSD
Matrix: Water
Analysis Batch: 306489

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	1.03		mg/L		103	75 - 125	2	4

Lab Sample ID: 400-121274-A-4 DU
Matrix: Water
Analysis Batch: 306489

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.27		0.270		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-306361/6
Matrix: Water
Analysis Batch: 306361

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			05/17/16 12:29	1

Lab Sample ID: LCS 400-306361/7
Matrix: Water
Analysis Batch: 306361

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: 400-121610-H-11 MS
Matrix: Water
Analysis Batch: 306361

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	1.4	U	10.0	9.31		mg/L		93	77 - 128

Lab Sample ID: 400-121610-H-11 MSD
Matrix: Water
Analysis Batch: 306361

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	1.4	U	10.0	9.62		mg/L		96	77 - 128	3	5

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

Lab Sample ID: 400-121272-2 DU
Matrix: Water
Analysis Batch: 306361

Client Sample ID: FB-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	1.4	U		1.4	U	mg/L				NC	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-250663/1-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250663

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03314	U	0.0343	0.0344	1.00	0.0546	pCi/L	05/11/16 18:00	06/02/16 07:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.4*		*40 - 110*	*05/11/16 18:00*	*06/02/16 07:51*	*1*

Lab Sample ID: LCS 160-250663/2-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250663

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	10.79		1.04	1.00	0.0490	pCi/L	97	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*76.1*		*40 - 110*

Lab Sample ID: LCSD 160-250663/3-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 250663

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	12.02		1.17	1.00	0.0941	pCi/L	108	68 - 137	0.56	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*61.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-253318/1-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 253318

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01240	U	0.235	0.235	1.00	0.416	pCi/L	05/25/16 18:35	06/02/16 14:30	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-253318/1-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 253318

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110	05/25/16 18:35	06/02/16 14:30	1
Y Carrier	89.3		40 - 110	05/25/16 18:35	06/02/16 14:30	1

Lab Sample ID: LCS 160-253318/2-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 253318

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	16.80		1.76	1.00	0.370	pCi/L	111	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.0		40 - 110
Y Carrier	90.5		40 - 110

Lab Sample ID: LCSD 160-253318/3-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 253318

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.1	18.73		1.95	1.00	0.403	pCi/L	124	56 - 140	0.52	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	89.7		40 - 110
Y Carrier	86.0		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:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53474-23631.1
Client Contact: Cari Eidred	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:
Address: 119 S Monroe St ste 300	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Tallahassee	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, 32301				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: carle@hgslaw.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424		400-121272 COC	
Site:	SSOW#:			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)	Preservation Code:	9315_Ra226, 9320_Ra228	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Special Instructions/Note:
FB-01				Water								
FB-02	5-4-16	1440	G	Water		X	X	X	X	X	X	
FB-03	5-5-16	0920	G	Water		X	X	X	X	X	X	
EB-01				Water								
EB-02	5-4-16	1055	G	Water		X	X	X	X	X	X	
EB-03	5-5-16	0940	G	Water		X	X	X	X	X	X	
DUP-01				Water								
DUP-02				Water								
DUP-03				Water								
Dup-04	5-5-16	1047	G	W		X	X	X	X	X	X	PH: 4.78

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: 5-5-16 1405	Company: RDHENV.	Received by:	Date/Time: 5/5/16 1405	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: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.0°C IR 4, 82, 0.2°C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-121272-1
SDG Number:

Login Number: 121272
List Number: 1
Creator: Crawford, Lauren E

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	0.0°C, 4.8°C, 0.2°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-121272-1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	07-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-17 *
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16 *
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16 *
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16 *
Nevada	State Program	9	MO000542016-1	07-31-16 *
New Jersey	NELAP	2	MO002	06-30-16 *
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16 *
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-121272-1

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-16 *
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16 *
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-121274-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
6/8/2016 10:00:23 AM

Cheyenne Whitmire, Project Manager II
(850)474-1001
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 25
Chronicle 26
QC Association 30
QC Sample Results 35
Chain of Custody 45
Receipt Checklists 46
Certification Summary 47

Job ID: 400-121274-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-121274-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 250664: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchette was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-101 (400-121274-1), MW-102 (400-121274-2), MW-103 (400-121274-3), MW-104 (400-121274-4), MW-105 (400-121274-5), MW-106 (400-121274-6), MW-109 (400-121274-7) and MW-110 (400-121274-8)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-250663: A deviation from the Standard Operating Procedure (SOP) occurred. Samples were re-prepared as follows: Precipitate on planchette was re-dissolved with EDTA, moved to a centrifuge tube, added standardized yttrium carrier and lead carrier. Samples were placed into a "re-ingrowth" period of at least 36 hours. This is to ensure proper separation of the yttrium oxalate and the barium sulfate which was believed to not have fully separated causing a high radium-228 spike recovery. New T1 times were recorded for the actinium-228, but not for the radium-226. Original T1 time will be used for the radium-226 portion as recorded in TALs. MW-101 (400-121274-1), MW-102 (400-121274-2), MW-103 (400-121274-3), MW-104 (400-121274-4), MW-105 (400-121274-5), MW-106 (400-121274-6), MW-109 (400-121274-7) and MW-110 (400-121274-8)

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 304980 and analytical batch 305489 were outside control limits for Boron. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 304982 and analytical batch 305489 were outside control limits. Sample matrix interference is 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-104 (400-121274-4), MW-105 (400-121274-5) and MW-110 (400-121274-8). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 306669 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.

Detection Summary

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-121274-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0095		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.62		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.10				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-121274-2

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	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00029	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Chloride	5.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.03				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-121274-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.056		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.30		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	5.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00064	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0026		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	31		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-121274-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0077		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00088	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	37		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.012		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0015		0.0013	0.00035	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-121274-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.044		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0038		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00030	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	7.8		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.00054		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	620		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	63		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.27		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	280		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	4.12				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-121274-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0039		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.033		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.32		0.050	0.021	mg/L	5		6020	Total Recoverable
Molybdenum	0.0093	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00030	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	58		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	250		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	34		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.25				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-121274-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.066		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.69				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-121274-7

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-109 (Continued) — Lab Sample ID: 400-121274-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.20		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	2.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0042		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0059		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-121274-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00061	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0047		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0072		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0033		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00024	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	2.9		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.0060		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	480		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	87		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	200		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.04				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-121274-1	MW-101	Water	05/04/16 12:08	05/05/16 14:05
400-121274-2	MW-102	Water	05/05/16 08:46	05/05/16 14:05
400-121274-3	MW-103	Water	05/05/16 10:14	05/05/16 14:05
400-121274-4	MW-104	Water	05/05/16 10:35	05/05/16 14:05
400-121274-5	MW-105	Water	05/05/16 09:00	05/05/16 14:05
400-121274-6	MW-106	Water	05/04/16 14:25	05/05/16 14:05
400-121274-7	MW-109	Water	05/05/16 11:47	05/05/16 14:05
400-121274-8	MW-110	Water	05/05/16 13:10	05/05/16 14:05

Client Sample ID: MW-101

Date Collected: 05/04/16 12:08
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-1

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		05/09/16 08:45	05/10/16 16:35	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 16:35	5
Barium	**0.0095**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 16:35	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:35	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 16:35	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:35	5
Calcium	**0.62**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 16:35	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 16:35	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 16:35	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 16:35	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 16:35	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 16:35	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 16:35	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 16:35	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		05/05/16 16:46	05/10/16 14:24	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6.0**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**4.5**		2.0	0.60	mg/L			05/17/16 09:25	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 09:55	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:56	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.259**		0.0677	0.0716	1.00	0.0578	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.4*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.589	U	0.410	0.413	1.00	0.635	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*94.2*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	**0.848**		0.415	0.420	5.00	0.635	pCi/L		06/05/16 23:05	1

Client Sample Results

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 05/04/16 12:08
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-1
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.10				SU			05/04/16 12:08	1

Client Sample ID: MW-102

Date Collected: 05/05/16 08:46
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-2

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		05/09/16 08:45	05/10/16 16:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 16:40	5
Barium	**0.011**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 16:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:40	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 16:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 16:40	5
Calcium	**1.2**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 16:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 16:40	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 16:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 16:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 16:40	5
Selenium	**0.00029**	**I**	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 16:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 16:40	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/11/16 11:40	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		05/05/16 16:46	05/10/16 14:26	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			05/10/16 16:39	1
Chloride	**5.6**		2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:19	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:56	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.38**		0.144	0.190	1.00	0.0569	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.4*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.43**		0.491	0.508	1.00	0.655	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*91.6*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-102
Date Collected: 05/05/16 08:46
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-2
Matrix: Water

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	2.82		0.511	0.543	5.00	0.655	pCi/L		06/05/16 23:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.03				SU			05/05/16 08:46	1

Client Sample ID: MW-103

Date Collected: 05/05/16 10:14
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-3

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		05/09/16 08:45	05/10/16 17:48	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 17:48	5
Barium	**0.056**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 17:48	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:48	5
Boron	**0.30**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 17:48	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:48	5
Calcium	**5.4**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 17:48	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 17:48	5
Cobalt	**0.00064**	**I**	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 17:48	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 17:48	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 17:48	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 17:48	5
Selenium	**0.0026**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 17:48	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 17:48	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		05/05/16 16:46	05/10/16 14:27	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**76**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**6.5**		2.0	0.60	mg/L			05/17/16 09:27	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:22	1
Sulfate	**31**		25	7.0	mg/L			05/17/16 13:13	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.859**		0.115	0.139	1.00	0.0646	pCi/L	05/11/16 18:00	06/02/16 08:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.7*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**3.27**		0.641	0.708	1.00	0.693	pCi/L	05/25/16 18:35	06/02/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.5*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*1*
Y Carrier	*90.1*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:31*	*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	**4.13**		0.651	0.721	5.00	0.693	pCi/L		06/05/16 23:05	1

Client Sample Results

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-103
Date Collected: 05/05/16 10:14
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.77				SU			05/05/16 10:14	1

Client Sample ID: MW-104

Date Collected: 05/05/16 10:35
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-4

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		05/09/16 08:45	05/10/16 17:53	5
Arsenic	**0.0077**		0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 17:53	5
Barium	**0.018**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 17:53	5
Beryllium	**0.00088**	**I**	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:53	5
Calcium	**37**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 17:53	5
Chromium	**0.0014**	**I**	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 17:53	5
Cobalt	**0.012**		0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 17:53	5
Lead	**0.0015**		0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 17:53	5
Lithium	**0.044**		0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 17:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 17:53	5
Selenium	**0.0038**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 17:53	5
Thallium	**0.00030**	**I**	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 17:53	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**7.8**		1.0	0.42	mg/L		05/09/16 08:45	05/11/16 11:44	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00054**		0.00020	0.000070	mg/L		05/05/16 16:46	05/10/16 14:28	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**63**		4.0	1.2	mg/L			05/17/16 14:40	2
Fluoride	**0.27**		0.10	0.032	mg/L			05/18/16 10:30	1
Sulfate	**280**		250	70	mg/L			05/17/16 13:13	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.440**		0.0796	0.0889	1.00	0.0466	pCi/L	05/11/16 18:00	06/02/16 08:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**8.99**		1.03	1.32	1.00	0.876	pCi/L	05/25/16 18:35	06/02/16 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*
Y Carrier	*85.6*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-104
Date Collected: 05/05/16 10:35
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-4
Matrix: Water

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	9.43		1.03	1.32	5.00	0.876	pCi/L		06/05/16 23:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.12				SU			05/05/16 10:35	1

Client Sample ID: MW-105

Date Collected: 05/05/16 09:00
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-5

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		05/09/16 08:45	05/10/16 17:57	5
Arsenic	**0.0039**		0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 17:57	5
Barium	**0.033**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 17:57	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:57	5
Boron	**0.32**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 17:57	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 17:57	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 17:57	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 17:57	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 17:57	5
Molybdenum	**0.0093**	**I**	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 17:57	5
Selenium	**0.00030**	**I**	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 17:57	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 17:57	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**58**		1.3	0.63	mg/L		05/09/16 08:45	05/11/16 11:49	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		05/05/16 16:46	05/10/16 14:29	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**250**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**34**		2.0	0.60	mg/L			05/17/16 14:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:36	1
Sulfate	**11**		5.0	1.4	mg/L			05/17/16 12:57	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.63**		0.152	0.211	1.00	0.0535	pCi/L	05/11/16 18:00	06/02/16 08:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.1*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.604**		0.390	0.394	1.00	0.598	pCi/L	05/25/16 18:35	06/02/16 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*
Y Carrier	*108*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-105
Date Collected: 05/05/16 09:00
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-5
Matrix: Water

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	2.24		0.419	0.447	5.00	0.598	pCi/L		06/05/16 23:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.25				SU			05/05/16 09:00	1

Client Sample ID: MW-106

Date Collected: 05/04/16 14:25
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-6

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		05/09/16 08:45	05/10/16 18:02	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 18:02	5
Barium	**0.012**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 18:02	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 18:02	5
Boron	**0.066**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 18:02	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 18:02	5
Calcium	**1.1**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 18:02	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 18:02	5
Cobalt	**0.0010**	**I**	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 18:02	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 18:02	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 18:02	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 18:02	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 18:02	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 18:02	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		05/05/16 16:46	05/10/16 14:31	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**3.0**		2.0	0.60	mg/L			05/17/16 14:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:38	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/17/16 12:57	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.154**		0.0530	0.0548	1.00	0.0515	pCi/L	05/11/16 18:00	06/02/16 08:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.7*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.319	U	0.344	0.345	1.00	0.677	pCi/L	05/25/16 18:35	06/02/16 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*
Y Carrier	*94.6*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*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	-0.166	U	0.348	0.349	5.00	0.677	pCi/L		06/05/16 23:05	1

Client Sample Results

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-106
Date Collected: 05/04/16 14:25
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-6
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.69				SU			05/04/16 14:25	1

Client Sample ID: MW-109

Date Collected: 05/05/16 11:47
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-7

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		05/09/16 08:45	05/10/16 18:06	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 18:06	5
Barium	**0.020**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 18:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 18:06	5
Boron	**0.20**		0.050	0.021	mg/L		05/09/16 08:45	05/10/16 18:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 18:06	5
Calcium	**2.6**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 18:06	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 18:06	5
Cobalt	**0.0042**		0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 18:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 18:06	5
Lithium	**0.0059**		0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 18:06	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 18:06	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 18:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 18:06	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		05/05/16 16:46	05/10/16 14:32	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**6.8**		2.0	0.60	mg/L			05/17/16 14:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:41	1
Sulfate	**15**		10	2.8	mg/L			05/17/16 13:13	2

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.523**		0.0937	0.105	1.00	0.0742	pCi/L	05/11/16 18:00	06/02/16 08:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.9*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.02**		0.437	0.447	1.00	0.607	pCi/L	05/25/16 18:35	06/02/16 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.5*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*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	**1.54**		0.447	0.459	5.00	0.607	pCi/L		06/05/16 23:05	1

Client Sample Results

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-109
Date Collected: 05/05/16 11:47
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-7
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.87				SU			05/05/16 11:47	1

Client Sample ID: MW-110

Date Collected: 05/05/16 13:10
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-8

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		05/09/16 08:45	05/10/16 18:11	5
Arsenic	**0.00061**	**I**	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 18:11	5
Barium	**0.050**		0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 18:11	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 18:11	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 18:11	5
Calcium	**21**		0.25	0.13	mg/L		05/09/16 08:45	05/10/16 18:11	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 18:11	5
Cobalt	**0.0047**		0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 18:11	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 18:11	5
Lithium	**0.0072**		0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 18:11	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 18:11	5
Selenium	**0.0033**		0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 18:11	5
Thallium	**0.00024**	**I**	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 18:11	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.9**		1.0	0.42	mg/L		05/09/16 08:45	05/11/16 11:54	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0060**		0.00020	0.000070	mg/L		05/05/16 16:46	05/10/16 14:41	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**480**		5.0	3.4	mg/L			05/10/16 16:39	1
Chloride	**87**		10	3.0	mg/L			05/17/16 14:40	5
Fluoride	0.032	U	0.10	0.032	mg/L			05/18/16 10:45	1
Sulfate	**200**		100	28	mg/L			05/19/16 11:38	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.01**		0.167	0.246	1.00	0.0509	pCi/L	05/11/16 18:00	06/02/16 08:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.4*		*40 - 110*	*05/11/16 18:00*	*06/02/16 08:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**3.50**		0.633	0.710	1.00	0.667	pCi/L	05/25/16 18:35	06/02/16 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*
Y Carrier	*96.4*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:32*	*1*

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-110
Date Collected: 05/05/16 13:10
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-8
Matrix: Water

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	5.51		0.655	0.752	5.00	0.667	pCi/L		06/05/16 23:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.04				SU			05/05/16 13:10	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-101

Date Collected: 05/04/16 12:08
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 16:35	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:24	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:25	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 09:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:56	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/04/16 12:08	BWS	TAL PEN

Client Sample ID: MW-102

Date Collected: 05/05/16 08:46
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 16:40	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		304980	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	305675	05/11/16 11:40	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:56	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 08:46	BWS	TAL PEN

Client Sample ID: MW-103

Date Collected: 05/05/16 10:14
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 17:48	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306308	05/17/16 09:27	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	306361	05/17/16 13:13	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 10:14	BWS	TAL PEN

Client Sample ID: MW-104

Date Collected: 05/05/16 10:35
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 17:53	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305675	05/11/16 11:44	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	306360	05/17/16 14:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:30	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	306361	05/17/16 13:13	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 10:35	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-105

Date Collected: 05/05/16 09:00
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 17:57	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	305675	05/11/16 11:49	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306360	05/17/16 14:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:36	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:57	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 09:00	BWS	TAL PEN

Client Sample ID: MW-106

Date Collected: 05/04/16 14:25
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 18:02	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306360	05/17/16 14:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	306361	05/17/16 12:57	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/04/16 14:25	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Client Sample ID: MW-109

Date Collected: 05/05/16 11:47
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 18:06	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	306360	05/17/16 14:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:41	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	306361	05/17/16 13:13	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 11:47	BWS	TAL PEN

Client Sample ID: MW-110

Date Collected: 05/05/16 13:10
Date Received: 05/05/16 14:05

Lab Sample ID: 400-121274-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	305489	05/10/16 18:11	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		304982	05/09/16 08:45	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	305675	05/11/16 11:54	RJB	TAL PEN
Total/NA	Prep	7470A			304855	05/05/16 16:46	JAP	TAL PEN
Total/NA	Analysis	7470A		1	305424	05/10/16 14:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	305433	05/10/16 16:39	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	306360	05/17/16 14:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	306489	05/18/16 10:45	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	306669	05/19/16 11:38	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			250663	05/11/16 18:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	254481	06/02/16 08:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			253318	05/25/16 18:35	MCJ	TAL SL
Total/NA	Analysis	9320		1	254481	06/02/16 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	254845	06/05/16 23:05	RTM	TAL SL
Total/NA	Analysis	Field Sampling		1	305363	05/05/16 13:10	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 304855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121252-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-121252-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
400-121274-1	MW-101	Total/NA	Water	7470A	
400-121274-2	MW-102	Total/NA	Water	7470A	
400-121274-3	MW-103	Total/NA	Water	7470A	
400-121274-4	MW-104	Total/NA	Water	7470A	
400-121274-5	MW-105	Total/NA	Water	7470A	
400-121274-6	MW-106	Total/NA	Water	7470A	
400-121274-7	MW-109	Total/NA	Water	7470A	
400-121274-8	MW-110	Total/NA	Water	7470A	
LCS 400-304855/15-A	Lab Control Sample	Total/NA	Water	7470A	
MB 400-304855/14-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 304980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-1	MW-101	Total Recoverable	Water	3005A	
400-121274-2 - RA	MW-102	Total Recoverable	Water	3005A	
400-121274-2	MW-102	Total Recoverable	Water	3005A	
490-102817-D-7-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
490-102817-D-7-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 400-304980/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-304980/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 304982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121216-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-121216-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-121274-3	MW-103	Total Recoverable	Water	3005A	
400-121274-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-121274-4	MW-104	Total Recoverable	Water	3005A	
400-121274-5	MW-105	Total Recoverable	Water	3005A	
400-121274-5 - DL	MW-105	Total Recoverable	Water	3005A	
400-121274-6	MW-106	Total Recoverable	Water	3005A	
400-121274-7	MW-109	Total Recoverable	Water	3005A	
400-121274-8	MW-110	Total Recoverable	Water	3005A	
400-121274-8 - DL	MW-110	Total Recoverable	Water	3005A	
LCS 400-304982/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
MB 400-304982/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 305424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121252-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	304855
400-121252-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	304855
400-121274-1	MW-101	Total/NA	Water	7470A	304855
400-121274-2	MW-102	Total/NA	Water	7470A	304855
400-121274-3	MW-103	Total/NA	Water	7470A	304855
400-121274-4	MW-104	Total/NA	Water	7470A	304855
400-121274-5	MW-105	Total/NA	Water	7470A	304855
400-121274-6	MW-106	Total/NA	Water	7470A	304855
400-121274-7	MW-109	Total/NA	Water	7470A	304855
400-121274-8	MW-110	Total/NA	Water	7470A	304855

Metals (Continued)

Analysis Batch: 305424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-304855/15-A	Lab Control Sample	Total/NA	Water	7470A	304855
MB 400-304855/14-A	Method Blank	Total/NA	Water	7470A	304855

Analysis Batch: 305489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121216-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	304982
400-121216-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	304982
400-121274-1	MW-101	Total Recoverable	Water	6020	304980
400-121274-2	MW-102	Total Recoverable	Water	6020	304980
400-121274-3	MW-103	Total Recoverable	Water	6020	304982
400-121274-4	MW-104	Total Recoverable	Water	6020	304982
400-121274-5	MW-105	Total Recoverable	Water	6020	304982
400-121274-6	MW-106	Total Recoverable	Water	6020	304982
400-121274-7	MW-109	Total Recoverable	Water	6020	304982
400-121274-8	MW-110	Total Recoverable	Water	6020	304982
490-102817-D-7-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	304980
490-102817-D-7-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	304980
LCS 400-304980/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304980
LCS 400-304982/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	304982
MB 400-304980/1-A ^5	Method Blank	Total Recoverable	Water	6020	304980
MB 400-304982/1-A ^5	Method Blank	Total Recoverable	Water	6020	304982
MRL 400-305489/18	Lab Control Sample	Total/NA	Water	6020	

Analysis Batch: 305675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-2 - RA	MW-102	Total Recoverable	Water	6020	304980
400-121274-4 - DL	MW-104	Total Recoverable	Water	6020	304982
400-121274-5 - DL	MW-105	Total Recoverable	Water	6020	304982
400-121274-8 - DL	MW-110	Total Recoverable	Water	6020	304982

General Chemistry

Analysis Batch: 305433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-121274-1	MW-101	Total/NA	Water	SM 2540C	
400-121274-2	MW-102	Total/NA	Water	SM 2540C	
400-121274-3	MW-103	Total/NA	Water	SM 2540C	
400-121274-4	MW-104	Total/NA	Water	SM 2540C	
400-121274-5	MW-105	Total/NA	Water	SM 2540C	
400-121274-6	MW-106	Total/NA	Water	SM 2540C	
400-121274-7	MW-109	Total/NA	Water	SM 2540C	
400-121274-8	MW-110	Total/NA	Water	SM 2540C	
LCS 400-305433/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 400-305433/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 306308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-121274-1 DU	MW-101	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 306308 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-121274-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-121584-G-5 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-121584-G-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-306308/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-306308/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 306360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-121274-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-121274-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-121274-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-121274-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-121660-F-4 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	
LCS 400-306360/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 400-306360/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 306361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121272-A-2 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-121274-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-121274-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-121274-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-121274-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-121274-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-121274-6	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-121274-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-121610-H-11 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-121610-H-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-306361/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-306361/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 306415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-5 MS	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-121274-5 MSD	MW-105	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 306489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-1	MW-101	Total/NA	Water	SM 4500 F C	
400-121274-1 MS	MW-101	Total/NA	Water	SM 4500 F C	
400-121274-1 MSD	MW-101	Total/NA	Water	SM 4500 F C	
400-121274-2	MW-102	Total/NA	Water	SM 4500 F C	
400-121274-3	MW-103	Total/NA	Water	SM 4500 F C	
400-121274-4	MW-104	Total/NA	Water	SM 4500 F C	
400-121274-4 DU	MW-104	Total/NA	Water	SM 4500 F C	
400-121274-5	MW-105	Total/NA	Water	SM 4500 F C	
400-121274-6	MW-106	Total/NA	Water	SM 4500 F C	
400-121274-7	MW-109	Total/NA	Water	SM 4500 F C	
400-121274-8	MW-110	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 306489 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-306489/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 400-306489/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 306669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-121651-E-4 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-121711-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-121711-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
LCS 400-306669/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 400-306669/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Rad

Prep Batch: 250663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-1	MW-101	Total/NA	Water	PrecSep-21	
400-121274-2	MW-102	Total/NA	Water	PrecSep-21	
400-121274-3	MW-103	Total/NA	Water	PrecSep-21	
400-121274-4	MW-104	Total/NA	Water	PrecSep-21	
400-121274-5	MW-105	Total/NA	Water	PrecSep-21	
400-121274-6	MW-106	Total/NA	Water	PrecSep-21	
400-121274-7	MW-109	Total/NA	Water	PrecSep-21	
400-121274-8	MW-110	Total/NA	Water	PrecSep-21	
LCS 160-250663/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-250663/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-250663/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 253318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-1	MW-101	Total/NA	Water	PrecSep_0	
400-121274-2	MW-102	Total/NA	Water	PrecSep_0	
400-121274-3	MW-103	Total/NA	Water	PrecSep_0	
400-121274-4	MW-104	Total/NA	Water	PrecSep_0	
400-121274-5	MW-105	Total/NA	Water	PrecSep_0	
400-121274-6	MW-106	Total/NA	Water	PrecSep_0	
400-121274-7	MW-109	Total/NA	Water	PrecSep_0	
400-121274-8	MW-110	Total/NA	Water	PrecSep_0	
LCS 160-253318/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-253318/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-253318/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 305363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-1	MW-101	Total/NA	Water	Field Sampling	
400-121274-2	MW-102	Total/NA	Water	Field Sampling	
400-121274-3	MW-103	Total/NA	Water	Field Sampling	
400-121274-4	MW-104	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 305363 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-121274-5	MW-105	Total/NA	Water	Field Sampling	
400-121274-6	MW-106	Total/NA	Water	Field Sampling	
400-121274-7	MW-109	Total/NA	Water	Field Sampling	
400-121274-8	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MRL 400-305489/18
Matrix: Water
Analysis Batch: 305489

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.250	0.33	U	ug/L		91	50 - 150
Barium	0.500	0.478	I	ug/L		96	50 - 150
Beryllium	0.250	0.249	I	ug/L		100	50 - 150
Boron	5.00	18	U	ug/L		63	50 - 150
Cadmium	0.250	0.274	I	ug/L		110	50 - 150
Calcium	50.0	130	U	ug/L		112	50 - 150
Chromium	0.500	0.498	I	ug/L		100	50 - 150
Cobalt	0.500	0.498	I	ug/L		100	50 - 150
Lead	0.250	0.33	U	ug/L		88	50 - 150
Lithium	0.500	1.6	U	ug/L		63	50 - 150
Molybdenum	0.500	0.423	I	ug/L		85	50 - 150
Selenium	0.250	0.23	U	ug/L		68	50 - 150
Thallium	0.100	0.0960	I	ug/L		96	50 - 150

Lab Sample ID: MB 400-304980/1-A ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/09/16 08:45	05/10/16 13:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 13:18	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 13:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 13:18	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 13:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 13:18	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 13:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 13:18	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 13:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 13:18	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 13:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 13:18	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 13:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 13:18	5

Lab Sample ID: LCS 400-304980/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0527		mg/L		105	80 - 120
Arsenic	0.0500	0.0520		mg/L		104	80 - 120
Barium	0.0500	0.0463		mg/L		93	80 - 120
Beryllium	0.0500	0.0476		mg/L		95	80 - 120
Boron	0.100	0.0966		mg/L		97	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120
Calcium	5.00	4.95		mg/L		99	80 - 120
Chromium	0.0500	0.0503		mg/L		101	80 - 120
Cobalt	0.0500	0.0481		mg/L		96	80 - 120

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

Lab Sample ID: LCS 400-304980/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0500	0.0484		mg/L		97	80 - 120
Lithium	0.0500	0.0504		mg/L		101	80 - 120
Molybdenum	0.0500	0.0487		mg/L		97	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.00996		mg/L		100	80 - 120

Lab Sample ID: 490-102817-D-7-B MS ^25
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304980

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0528		mg/L		106	75 - 125
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125
Barium	0.023		0.0500	0.0695		mg/L		93	75 - 125
Beryllium	0.00034	U	0.0500	0.0480		mg/L		96	75 - 125
Boron	0.067		0.100	0.131	I J3	mg/L		64	75 - 125
Cadmium	0.00034	U	0.0500	0.0536		mg/L		107	75 - 125
Calcium	11		5.00	15.6		mg/L		97	75 - 125
Chromium	0.0075		0.0500	0.0600		mg/L		105	75 - 125
Cobalt	0.00040	U	0.0500	0.0494		mg/L		99	75 - 125
Lead	0.00062	I	0.0500	0.0485		mg/L		96	75 - 125
Lithium	0.0032	U	0.0500	0.0511		mg/L		102	75 - 125
Molybdenum	0.00085	U	0.0500	0.0497	I	mg/L		99	75 - 125
Selenium	0.0032		0.0500	0.0509		mg/L		95	75 - 125
Thallium	0.000085	U	0.0100	0.00995		mg/L		100	75 - 125

Lab Sample ID: 490-102817-D-7-C MSD ^25
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 304980

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	0.0514		mg/L		103	75 - 125	3	20
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125	0	20
Barium	0.023		0.0500	0.0713		mg/L		97	75 - 125	3	20
Beryllium	0.00034	U	0.0500	0.0481		mg/L		96	75 - 125	0	20
Boron	0.067		0.100	0.122	I J3	mg/L		55	75 - 125	7	20
Cadmium	0.00034	U	0.0500	0.0562		mg/L		112	75 - 125	5	20
Calcium	11		5.00	16.4		mg/L		113	75 - 125	5	20
Chromium	0.0075		0.0500	0.0591		mg/L		103	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125	1	20
Lead	0.00062	I	0.0500	0.0495		mg/L		98	75 - 125	2	20
Lithium	0.0032	U	0.0500	0.0536		mg/L		107	75 - 125	5	20
Molybdenum	0.00085	U	0.0500	0.0501	I	mg/L		100	75 - 125	1	20
Selenium	0.0032		0.0500	0.0522		mg/L		98	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.0103		mg/L		103	75 - 125	3	20

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

Lab Sample ID: MB 400-304982/1-A ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/09/16 08:45	05/10/16 17:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/09/16 08:45	05/10/16 17:39	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/09/16 08:45	05/10/16 17:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:39	5
Boron	0.021	U	0.050	0.021	mg/L		05/09/16 08:45	05/10/16 17:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/09/16 08:45	05/10/16 17:39	5
Calcium	0.13	U	0.25	0.13	mg/L		05/09/16 08:45	05/10/16 17:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/09/16 08:45	05/10/16 17:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/09/16 08:45	05/10/16 17:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/09/16 08:45	05/10/16 17:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/09/16 08:45	05/10/16 17:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/09/16 08:45	05/10/16 17:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/09/16 08:45	05/10/16 17:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/09/16 08:45	05/10/16 17:39	5

Lab Sample ID: LCS 400-304982/2-A ^1
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0536		mg/L		107	80 - 120
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0472		mg/L		94	80 - 120
Beryllium	0.0500	0.0484		mg/L		97	80 - 120
Boron	0.100	0.0975		mg/L		98	80 - 120
Cadmium	0.0500	0.0515		mg/L		103	80 - 120
Calcium	5.00	5.03		mg/L		101	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120
Cobalt	0.0500	0.0485		mg/L		97	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0533		mg/L		107	80 - 120
Molybdenum	0.0500	0.0496		mg/L		99	80 - 120
Selenium	0.0500	0.0498		mg/L		100	80 - 120
Thallium	0.0100	0.00999		mg/L		100	80 - 120

Lab Sample ID: 400-121216-H-1-B MS ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0566		mg/L		113	75 - 125
Arsenic	0.0020		0.0500	0.0563		mg/L		109	75 - 125
Barium	0.044		0.0500	0.0910		mg/L		94	75 - 125
Beryllium	0.0011	I	0.0500	0.0503		mg/L		99	75 - 125
Boron	0.17		0.100	0.197	J3	mg/L		27	75 - 125
Cadmium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125
Calcium	200		5.00	202		mg/L		120	75 - 125
Chromium	0.0011	U	0.0500	0.0517		mg/L		103	75 - 125

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

Lab Sample ID: 400-121216-H-1-B MS ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 304982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00064	I	0.0500	0.0487		mg/L		96	75 - 125
Lead	0.00035	U	0.0500	0.0471		mg/L		94	75 - 125
Lithium	0.024		0.0500	0.0717		mg/L		96	75 - 125
Molybdenum	0.0010	I	0.0500	0.0517		mg/L		101	75 - 125
Selenium	0.00024	U	0.0500	0.0516		mg/L		103	75 - 125
Thallium	0.000085	U	0.0100	0.00990		mg/L		99	75 - 125

Lab Sample ID: 400-121216-H-1-C MSD ^5
Matrix: Water
Analysis Batch: 305489

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 304982

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	0.0554		mg/L		111	75 - 125	2	20
Arsenic	0.0020		0.0500	0.0561		mg/L		108	75 - 125	0	20
Barium	0.044		0.0500	0.0905		mg/L		93	75 - 125	1	20
Beryllium	0.0011	I	0.0500	0.0498		mg/L		97	75 - 125	1	20
Boron	0.17		0.100	0.186	J3	mg/L		16	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125	0	20
Calcium	200		5.00	200		mg/L		86	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0505		mg/L		101	75 - 125	2	20
Cobalt	0.00064	I	0.0500	0.0493		mg/L		97	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0477		mg/L		95	75 - 125	1	20
Lithium	0.024		0.0500	0.0720		mg/L		96	75 - 125	0	20
Molybdenum	0.0010	I	0.0500	0.0513		mg/L		101	75 - 125	1	20
Selenium	0.00024	U	0.0500	0.0510		mg/L		102	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-304855/14-A
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304855

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/05/16 16:38	05/10/16 14:02	1

Lab Sample ID: LCS 400-304855/15-A
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304855

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00103		mg/L		102	80 - 120

Lab Sample ID: 400-121252-B-1-B MS
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 304855

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00197		mg/L		98	80 - 120

Lab Sample ID: 400-121252-B-1-C MSD
Matrix: Water
Analysis Batch: 305424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 304855

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	0.00189		mg/L		94	80 - 120	4	20

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

Lab Sample ID: MB 400-305433/1
Matrix: Water
Analysis Batch: 305433

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			05/10/16 16:39	1

Lab Sample ID: LCS 400-305433/2
Matrix: Water
Analysis Batch: 305433

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	298		mg/L		102	78 - 122

Lab Sample ID: 400-121272-A-4 DU
Matrix: Water
Analysis Batch: 305433

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	3.4	U	4.00	I	mg/L		NC	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-306308/6
Matrix: Water
Analysis Batch: 306308

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 08:23	1

Lab Sample ID: LCS 400-306308/7
Matrix: Water
Analysis Batch: 306308

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: 400-121584-G-5 MS
Matrix: Water
Analysis Batch: 306308

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	0.60	U	10.0	11.0		mg/L		110	73 - 120

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

Lab Sample ID: 400-121584-G-5 MSD
Matrix: Water
Analysis Batch: 306308

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	0.60	U	10.0	10.8		mg/L		108	73 - 120	2	8

Lab Sample ID: 400-121274-1 DU
Matrix: Water
Analysis Batch: 306308

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	4.5		4.49		mg/L		0.08	8

Lab Sample ID: MB 400-306360/6
Matrix: Water
Analysis Batch: 306360

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/17/16 12:27	1

Lab Sample ID: LCS 400-306360/7
Matrix: Water
Analysis Batch: 306360

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: 400-121660-F-4 DU
Matrix: Water
Analysis Batch: 306360

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	210		208		mg/L		3	8

Lab Sample ID: 400-121274-5 MS
Matrix: Water
Analysis Batch: 306415

Client Sample ID: MW-105
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	34		10.0	42.7		mg/L		84	73 - 120

Lab Sample ID: 400-121274-5 MSD
Matrix: Water
Analysis Batch: 306415

Client Sample ID: MW-105
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	34		10.0	42.4		mg/L		81	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-306489/3
Matrix: Water
Analysis Batch: 306489

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			05/18/16 09:48	1

Lab Sample ID: LCS 400-306489/4
Matrix: Water
Analysis Batch: 306489

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	4.28		mg/L		107	90 - 110

Lab Sample ID: 400-121274-1 MS
Matrix: Water
Analysis Batch: 306489

Client Sample ID: MW-101
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	1.05		mg/L		105	75 - 125

Lab Sample ID: 400-121274-1 MSD
Matrix: Water
Analysis Batch: 306489

Client Sample ID: MW-101
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	1.03		mg/L		103	75 - 125	2	4

Lab Sample ID: 400-121274-4 DU
Matrix: Water
Analysis Batch: 306489

Client Sample ID: MW-104
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.27		0.270		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-306361/6
Matrix: Water
Analysis Batch: 306361

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			05/17/16 12:29	1

Lab Sample ID: LCS 400-306361/7
Matrix: Water
Analysis Batch: 306361

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

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

Lab Sample ID: 400-121610-H-11 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306361

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	U	10.0	9.31		mg/L		93	77 - 128

Lab Sample ID: 400-121610-H-11 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306361

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	9.62		mg/L		96	77 - 128	3	5

Lab Sample ID: 400-121272-A-2 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306361

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	1.4	U	1.4	U	mg/L		NC	5

Lab Sample ID: MB 400-306669/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306669

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			05/19/16 09:36	1

Lab Sample ID: LCS 400-306669/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306669

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: 400-121711-B-3 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128

Lab Sample ID: 400-121711-B-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306669

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128	NC	5

Lab Sample ID: 400-121651-E-4 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306669

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	730		699		mg/L		4	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-250663/1-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250663

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03314	U	0.0343	0.0344	1.00	0.0546	pCi/L	05/11/16 18:00	06/02/16 07:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.4*		*40 - 110*	*05/11/16 18:00*	*06/02/16 07:51*	*1*

Lab Sample ID: LCS 160-250663/2-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250663

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	10.79		1.04	1.00	0.0490	pCi/L	97	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*76.1*		*40 - 110*

Lab Sample ID: LCSD 160-250663/3-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 250663

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	12.02		1.17	1.00	0.0941	pCi/L	108	68 - 137	0.56	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*61.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-253318/1-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 253318

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01240	U	0.235	0.235	1.00	0.416	pCi/L	05/25/16 18:35	06/02/16 14:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:30*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/25/16 18:35*	*06/02/16 14:30*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-253318/2-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 253318

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	16.80		1.76	1.00	0.370	pCi/L	111	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.0*		*40 - 110*
Y Carrier	*90.5*		*40 - 110*

Lab Sample ID: LCSD 160-253318/3-A
Matrix: Water
Analysis Batch: 254481

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 253318

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.1	18.73		1.95	1.00	0.403	pCi/L	124	56 - 140	0.52	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*89.7*		*40 - 110*
Y Carrier	*86.0*		*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:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53450-23628.1
Client Contact: Carl Eldred	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Hopping Greens & Sams				Job #:

Address: 119 S Monroe St ste 300	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Tallahassee	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, 32301			
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required		Other:
Email: carle@hgslaw.com	WO #:		
Project Name: CCR Plant Crist Landfill 1	Project #: 40005424		
Site:	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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Special Instructions/Note:
		Preservation Code:											
MW-101	5-4-16	~~1055~~ 1058	G	Water									PH: 5.10
MW-102	5-5-16	0846	G	Water									PH: 5.05
MW-103	5-5-16	1014	G	Water									PH: 5.77
MW-104	5-5-16	1035	G	Water									PH: 4.12
MW-105	5-5-16	0900	G	Water									PH: 6.85
MW-106	5-4-16	1425	G	Water									PH: 5.69
MW-109	5-5-16	1147	G	Water									PH: 4.87
MW-110	5-5-16	1510	G	Water									PH: 5.04

400-121274 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
	5-5-16 1405	RPHENK		5/5/16 1405	
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: 0.0°C 4.3°C 0.2°C

6/8/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-121274-1
SDG Number: Landfill 1

Login Number: 121274
List Number: 1
Creator: Crawford, Lauren E

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	0.0°C, 4.3°C, 0.2°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-16
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	07-31-16 *
Kentucky (UST)	State Program	4	53	06-30-16
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-16
Maryland	State Program	3	233	09-30-16
Massachusetts	State Program	1	M-FL094	06-30-16
Michigan	State Program	5	9912	06-30-16
New Jersey	NELAP	2	FL006	06-30-17 *
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16
Tennessee	State Program	4	TN02907	06-30-16
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-16
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-16 *
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-16 *
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-16 *
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-16
Missouri	State Program	7	780	06-30-16 *
Nevada	State Program	9	MO000542016-1	07-31-16 *
New Jersey	NELAP	2	MO002	06-30-16 *
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-16 *
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-121274-1
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-16 *
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16
Virginia	NELAP	3	460230	06-14-16 *
Washington	State Program	10	C592	08-30-16
West Virginia DEP	State Program	3	381	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-123962-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
8/14/2016 9:16:55 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 20
Chronicle 21
QC Association 24
QC Sample Results 28
Chain of Custody 36
Receipt Checklists 37
Certification Summary 38

Job ID: 400-123962-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-123962-1

RAD

Method(s) PrecSep_0: Radium-228 prep batch 160-259775: A laboratory control sample and laboratory control sample duplicate were used instead of a sample duplicate for the following samples, in order to keep from fully consuming the sample. The samples were weighed at full aliquot. MW-100 (400-123962-1), MW-107 (400-123962-2), MW-108 (400-123962-3), MW-306 (400-123962-4), MW-307 (400-123962-5) and DUP-01 (400-123962-6)

Method(s) PrecSep-21: Radium-226 prep batch 160-259772: A laboratory control sample and laboratory control sample duplicate were used instead of a sample duplicate for the following samples, in order to keep from fully consuming the sample. The samples were weighed at full aliquot. MW-100 (400-123962-1), MW-107 (400-123962-2), MW-108 (400-123962-3), MW-306 (400-123962-4), MW-307 (400-123962-5) and DUP-01 (400-123962-6)

General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 313078 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.

Detection Summary

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-123962-1

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
Calcium	0.65		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00049	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.12				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-123962-2

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
Calcium	0.43		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0051		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0027		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.48				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-123962-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0089		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.94		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0059		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0032		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.0	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	7.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-123962-4

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	0.53		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	4.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.38				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-123962-5

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 400-123962-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00077	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00055	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	3.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	6.29				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-123962-6

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
Calcium	0.44		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0055		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0029		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	5.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.48				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-123962-1
SDG: Background

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-123962-1	MW-100	Water	07/05/16 11:35	07/05/16 15:38
400-123962-2	MW-107	Water	07/05/16 10:17	07/05/16 15:38
400-123962-3	MW-108	Water	07/05/16 09:22	07/05/16 15:38
400-123962-4	MW-306	Water	07/05/16 12:49	07/05/16 15:38
400-123962-5	MW-307	Water	07/05/16 14:22	07/05/16 15:38
400-123962-6	DUP-01	Water	07/05/16 09:17	07/05/16 15:38

Client Sample ID: MW-100

Date Collected: 07/05/16 11:35
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-1

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		07/08/16 09:20	07/08/16 19:00	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:00	5
Barium	**0.013**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:00	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:00	5
Calcium	**0.65**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:00	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:00	5
Cobalt	**0.00049**	**I**	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:00	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:00	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:00	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:00	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:00	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 13:48	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 13:48	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 13:48	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		07/06/16 08:50	07/07/16 13:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12**		5.0	3.4	mg/L			07/06/16 14:48	1
Chloride	**4.2**		2.0	0.60	mg/L			07/06/16 09:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/17/16 17:11	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/06/16 08:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.515**		0.179	0.185	1.00	0.179	pCi/L	07/08/16 15:10	08/01/16 20:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.432**		0.247	0.250	1.00	0.373	pCi/L	07/08/16 15:10	08/01/16 12:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:36*	*1*
Y Carrier	*82.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:36*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 07/05/16 11:35
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-1
Matrix: Water

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	0.947		0.305	0.311	5.00	0.373	pCi/L		08/03/16 23:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.12				SU			07/05/16 11:35	1

Client Sample ID: MW-107
Date Collected: 07/05/16 10:17
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-2
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		07/08/16 09:20	07/08/16 19:05	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:05	5
Barium	**0.013**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:05	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:05	5
Calcium	**0.43**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:05	5
Chromium	**0.0051**		0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:05	5
Cobalt	**0.0027**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:05	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:05	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:05	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:05	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 13:53	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 13:53	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 13:53	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		07/06/16 08:50	07/07/16 13:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			07/06/16 14:48	1
Chloride	**5.2**		2.0	0.60	mg/L			07/06/16 09:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/17/16 17:14	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/06/16 08:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.378**		0.166	0.170	1.00	0.195	pCi/L	07/08/16 15:10	08/01/16 20:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.583**		0.245	0.251	1.00	0.342	pCi/L	07/08/16 15:10	08/01/16 12:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:36*	*1*
Y Carrier	*80.0*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:36*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 07/05/16 10:17
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-2
Matrix: Water

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	0.961		0.296	0.303	5.00	0.342	pCi/L		08/03/16 23:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.48				SU			07/05/16 10:17	1

Client Sample ID: MW-108
Date Collected: 07/05/16 09:22
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-3
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		07/08/16 09:20	07/08/16 19:09	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:09	5
Barium	**0.0089**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:09	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:09	5
Calcium	**0.94**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:09	5
Chromium	**0.0059**		0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:09	5
Cobalt	**0.0032**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:09	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:09	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:09	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:09	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:09	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 13:57	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 13:57	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 13:57	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		07/06/16 08:50	07/07/16 13:18	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			07/06/16 14:48	1
Chloride	**4.8**		2.0	0.60	mg/L			07/06/16 09:20	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/17/16 17:17	1
Sulfate	**2.0**	**I**	5.0	1.4	mg/L			07/06/16 08:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.390**		0.206	0.209	1.00	0.287	pCi/L	07/08/16 15:10	08/01/16 20:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:03*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.622**		0.261	0.267	1.00	0.371	pCi/L	07/08/16 15:10	08/01/16 12:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:35*	*1*
Y Carrier	*83.0*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:35*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 07/05/16 09:22
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-3
Matrix: Water

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	1.01		0.332	0.339	5.00	0.371	pCi/L		08/03/16 23:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.11				SU			07/05/16 09:22	1

Client Sample ID: MW-306
Date Collected: 07/05/16 12:49
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-4
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		07/08/16 09:20	07/08/16 19:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:14	5
Barium	**0.011**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:14	5
Calcium	**0.53**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:14	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:14	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:14	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 14:02	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 14:02	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 14:02	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		07/06/16 08:50	07/07/16 13:19	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			07/06/16 14:48	1
Chloride	**4.7**		2.0	0.60	mg/L			07/07/16 16:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 16:31	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/06/16 08:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.164	U	0.129	0.130	1.00	0.191	pCi/L	07/08/16 15:10	08/01/16 20:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:03*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.428**		0.234	0.237	1.00	0.349	pCi/L	07/08/16 15:10	08/01/16 12:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:35*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:35*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 07/05/16 12:49
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-4
Matrix: Water

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	0.591		0.267	0.270	5.00	0.349	pCi/L		08/03/16 23:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.38				SU			07/05/16 12:49	1

Client Sample ID: MW-307
Date Collected: 07/05/16 14:22
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-5
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		07/08/16 09:20	07/08/16 19:18	5
Arsenic	**0.00077**	**I**	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:18	5
Barium	**0.017**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:18	5
Calcium	**1.6**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:18	5
Cobalt	**0.00055**	**I**	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:18	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:18	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 14:06	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 14:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 14:06	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		07/06/16 08:50	07/07/16 13:31	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			07/06/16 14:48	1
Chloride	**3.6**		2.0	0.60	mg/L			07/07/16 16:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 16:37	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/06/16 08:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0119	U	0.147	0.147	1.00	0.274	pCi/L	07/08/16 15:10	08/01/16 20:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:03*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0130	U	0.193	0.193	1.00	0.352	pCi/L	07/08/16 15:10	08/01/16 12:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:35*	*1*
Y Carrier	*78.5*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:35*	*1*

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-307
Date Collected: 07/05/16 14:22
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-5
Matrix: Water

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	-0.00107	U	0.242	0.242	5.00	0.352	pCi/L		08/03/16 23:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.29**				SU			07/05/16 14:22	1

Client Sample ID: DUP-01
Date Collected: 07/05/16 09:17
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-6
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		07/08/16 09:20	07/08/16 19:23	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:23	5
Barium	**0.013**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:23	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:23	5
Calcium	**0.44**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:23	5
Chromium	**0.0055**		0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:23	5
Cobalt	**0.0029**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:23	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:23	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:23	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:23	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:23	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 14:11	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 14:11	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 14:11	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		07/06/16 08:50	07/07/16 13:33	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			07/06/16 14:48	1
Chloride	**5.7**		2.0	0.60	mg/L			07/07/16 16:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 16:40	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/06/16 08:24	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.309**		0.200	0.202	1.00	0.296	pCi/L	07/08/16 15:10	08/01/16 20:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:03*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.642**		0.314	0.320	1.00	0.466	pCi/L	07/08/16 15:10	08/01/16 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:45*	*1*
Y Carrier	*80.4*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: DUP-01
Date Collected: 07/05/16 09:17
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-6
Matrix: Water

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	0.951		0.373	0.378	5.00	0.466	pCi/L		08/03/16 23:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.48				SU			07/05/16 09:17	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-100

Date Collected: 07/05/16 11:35
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:00	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 13:48	RJB	TAL PEN
Total/NA	Prep	7470A			312961	07/06/16 08:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313274	07/07/16 13:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313032	07/06/16 14:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313078	07/06/16 09:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	314606	07/17/16 17:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313079	07/06/16 08:24	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 12:36	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263364	08/03/16 23:57	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317109	07/05/16 11:35	BWS	TAL PEN

Client Sample ID: MW-107

Date Collected: 07/05/16 10:17
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:05	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 13:53	RJB	TAL PEN
Total/NA	Prep	7470A			312961	07/06/16 08:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313274	07/07/16 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313032	07/06/16 14:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313078	07/06/16 09:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	314606	07/17/16 17:14	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313079	07/06/16 08:24	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:02	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 12:36	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263364	08/03/16 23:57	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317109	07/05/16 10:17	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Client Sample ID: MW-108

Date Collected: 07/05/16 09:22
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:09	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 13:57	RJB	TAL PEN
Total/NA	Prep	7470A			312961	07/06/16 08:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313274	07/07/16 13:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313032	07/06/16 14:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313078	07/06/16 09:20	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	314606	07/17/16 17:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313079	07/06/16 08:24	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 12:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263364	08/03/16 23:57	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317109	07/05/16 09:22	BWS	TAL PEN

Client Sample ID: MW-306

Date Collected: 07/05/16 12:49
Date Received: 07/05/16 15:38

Lab Sample ID: 400-123962-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:14	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 14:02	RJB	TAL PEN
Total/NA	Prep	7470A			312961	07/06/16 08:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313274	07/07/16 13:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313032	07/06/16 14:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:52	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313079	07/06/16 08:24	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 12:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263364	08/03/16 23:57	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317109	07/05/16 12:49	BWS	TAL PEN

Client Sample ID: MW-307

Lab Sample ID: 400-123962-5

Date Collected: 07/05/16 14:22

Matrix: Water

Date Received: 07/05/16 15:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:18	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 14:06	RJB	TAL PEN
Total/NA	Prep	7470A			312961	07/06/16 08:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313274	07/07/16 13:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313032	07/06/16 14:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:52	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:37	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313079	07/06/16 08:24	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 12:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263364	08/03/16 23:57	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317109	07/05/16 14:22	BWS	TAL PEN

Client Sample ID: DUP-01

Lab Sample ID: 400-123962-6

Date Collected: 07/05/16 09:17

Matrix: Water

Date Received: 07/05/16 15:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:23	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 14:11	RJB	TAL PEN
Total/NA	Prep	7470A			312961	07/06/16 08:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313274	07/07/16 13:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313032	07/06/16 14:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:52	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313079	07/06/16 08:24	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263364	08/03/16 23:57	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317109	07/05/16 09:17	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 312961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	7470A	
400-123962-2	MW-107	Total/NA	Water	7470A	
400-123962-3	MW-108	Total/NA	Water	7470A	
400-123962-4	MW-306	Total/NA	Water	7470A	
400-123962-5	MW-307	Total/NA	Water	7470A	
400-123962-6	DUP-01	Total/NA	Water	7470A	
MB 400-312961/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-312961/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-123973-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-123973-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 313274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	7470A	312961
400-123962-2	MW-107	Total/NA	Water	7470A	312961
400-123962-3	MW-108	Total/NA	Water	7470A	312961
400-123962-4	MW-306	Total/NA	Water	7470A	312961
400-123962-5	MW-307	Total/NA	Water	7470A	312961
400-123962-6	DUP-01	Total/NA	Water	7470A	312961
MB 400-312961/14-A	Method Blank	Total/NA	Water	7470A	312961
LCS 400-312961/15-A	Lab Control Sample	Total/NA	Water	7470A	312961
400-123973-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	312961
400-123973-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	312961

Prep Batch: 313348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1 - RA	MW-100	Total Recoverable	Water	3005A	
400-123962-1	MW-100	Total Recoverable	Water	3005A	
400-123962-2 - RA	MW-107	Total Recoverable	Water	3005A	
400-123962-2	MW-107	Total Recoverable	Water	3005A	
400-123962-3	MW-108	Total Recoverable	Water	3005A	
400-123962-3 - RA	MW-108	Total Recoverable	Water	3005A	
400-123962-4 - RA	MW-306	Total Recoverable	Water	3005A	
400-123962-4	MW-306	Total Recoverable	Water	3005A	
400-123962-5	MW-307	Total Recoverable	Water	3005A	
400-123962-5 - RA	MW-307	Total Recoverable	Water	3005A	
400-123962-6 - RA	DUP-01	Total Recoverable	Water	3005A	
400-123962-6	DUP-01	Total Recoverable	Water	3005A	
MB 400-313348/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-313348/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124027-B-3-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124027-B-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 313677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total Recoverable	Water	6020	313348
400-123962-2	MW-107	Total Recoverable	Water	6020	313348
400-123962-3	MW-108	Total Recoverable	Water	6020	313348
400-123962-4	MW-306	Total Recoverable	Water	6020	313348
400-123962-5	MW-307	Total Recoverable	Water	6020	313348
400-123962-6	DUP-01	Total Recoverable	Water	6020	313348

Metals (Continued)

Analysis Batch: 313677 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-313348/1-A ^5	Method Blank	Total Recoverable	Water	6020	313348
LCS 400-313348/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	313348
400-124027-B-3-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	313348
400-124027-B-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	313348

Analysis Batch: 313813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1 - RA	MW-100	Total Recoverable	Water	6020	313348
400-123962-2 - RA	MW-107	Total Recoverable	Water	6020	313348
400-123962-3 - RA	MW-108	Total Recoverable	Water	6020	313348
400-123962-4 - RA	MW-306	Total Recoverable	Water	6020	313348
400-123962-5 - RA	MW-307	Total Recoverable	Water	6020	313348
400-123962-6 - RA	DUP-01	Total Recoverable	Water	6020	313348
MB 400-313348/1-A ^5	Method Blank	Total Recoverable	Water	6020	313348
LCS 400-313348/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	313348
400-124027-B-3-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	313348
400-124027-B-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	313348

General Chemistry

Analysis Batch: 313032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	SM 2540C	
400-123962-2	MW-107	Total/NA	Water	SM 2540C	
400-123962-3	MW-108	Total/NA	Water	SM 2540C	
400-123962-4	MW-306	Total/NA	Water	SM 2540C	
400-123962-5	MW-307	Total/NA	Water	SM 2540C	
400-123962-6	DUP-01	Total/NA	Water	SM 2540C	
MB 400-313032/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-313032/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-123912-K-11 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 313078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-123962-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-123962-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
MB 400-313078/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-313078/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-123868-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-123868-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-123972-A-2 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 313079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-123962-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-123962-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-123962-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-123962-5	MW-307	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 313079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-313079/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-313079/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 400-313079/8	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCSD 400-313079/9	Lab Control Sample Dup	Total/NA	Water	SM 4500 SO4 E	
400-123868-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-123868-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-123744-A-18 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 313323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-123962-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-123962-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-313323/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-313323/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-124075-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-124075-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-124062-A-1 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 314606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	SM 4500 F C	
400-123962-2	MW-107	Total/NA	Water	SM 4500 F C	
400-123962-3	MW-108	Total/NA	Water	SM 4500 F C	
MB 400-314606/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-314606/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-124007-E-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-124007-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-124474-A-2 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 315304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-4	MW-306	Total/NA	Water	SM 4500 F C	
400-123962-5	MW-307	Total/NA	Water	SM 4500 F C	
400-123962-6	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-315304/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-315304/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-123962-4 MS	MW-306	Total/NA	Water	SM 4500 F C	
400-123962-4 MSD	MW-306	Total/NA	Water	SM 4500 F C	
400-124027-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 259772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	PrecSep-21	
400-123962-2	MW-107	Total/NA	Water	PrecSep-21	
400-123962-3	MW-108	Total/NA	Water	PrecSep-21	
400-123962-4	MW-306	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 259772 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-5	MW-307	Total/NA	Water	PrecSep-21	
400-123962-6	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-259772/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259772/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-259772/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 259775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	PrecSep_0	
400-123962-2	MW-107	Total/NA	Water	PrecSep_0	
400-123962-3	MW-108	Total/NA	Water	PrecSep_0	
400-123962-4	MW-306	Total/NA	Water	PrecSep_0	
400-123962-5	MW-307	Total/NA	Water	PrecSep_0	
400-123962-6	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-259775/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259775/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-259775/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 317109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123962-1	MW-100	Total/NA	Water	Field Sampling	
400-123962-2	MW-107	Total/NA	Water	Field Sampling	
400-123962-3	MW-108	Total/NA	Water	Field Sampling	
400-123962-4	MW-306	Total/NA	Water	Field Sampling	
400-123962-5	MW-307	Total/NA	Water	Field Sampling	
400-123962-6	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-313348/1-A ^5
Matrix: Water
Analysis Batch: 313677

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		07/08/16 09:20	07/08/16 18:15	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 18:15	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 18:15	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 18:15	5
Calcium	0.13	U	0.25	0.13	mg/L		07/08/16 09:20	07/08/16 18:15	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 18:15	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 18:15	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 18:15	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 18:15	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 18:15	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 18:15	5

Lab Sample ID: MB 400-313348/1-A ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 13:01	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 13:01	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 13:01	5

Lab Sample ID: LCS 400-313348/2-A ^1
Matrix: Water
Analysis Batch: 313677

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0558		mg/L		112	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Barium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0502		mg/L		100	80 - 120
Calcium	5.00	4.85		mg/L		97	80 - 120
Chromium	0.0500	0.0501		mg/L		100	80 - 120
Cobalt	0.0500	0.0494		mg/L		99	80 - 120
Lead	0.0500	0.0511		mg/L		102	80 - 120
Molybdenum	0.0500	0.0499		mg/L		100	80 - 120
Selenium	0.0500	0.0523		mg/L		105	80 - 120
Thallium	0.0100	0.00985		mg/L		98	80 - 120

Lab Sample ID: LCS 400-313348/2-A ^1
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0500		mg/L		100	80 - 120
Boron	0.100	0.0992		mg/L		99	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120

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

Lab Sample ID: 400-124027-B-3-C MS ^5
Matrix: Water
Analysis Batch: 313677

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0569		mg/L		114	75 - 125
Arsenic	0.00046	U	0.0500	0.0533		mg/L		107	75 - 125
Barium	0.014		0.0500	0.0617		mg/L		95	75 - 125
Cadmium	0.00034	U	0.0500	0.0504		mg/L		101	75 - 125
Calcium	4.8		5.00	9.66		mg/L		98	75 - 125
Chromium	0.0011	U	0.0500	0.0489		mg/L		98	75 - 125
Cobalt	0.00093	I	0.0500	0.0501		mg/L		98	75 - 125
Lead	0.00035	U	0.0500	0.0493		mg/L		99	75 - 125
Molybdenum	0.00085	U	0.0500	0.0499		mg/L		100	75 - 125
Selenium	0.00060	I	0.0500	0.0525		mg/L		104	75 - 125
Thallium	0.000085	U	0.0100	0.00961		mg/L		96	75 - 125

Lab Sample ID: 400-124027-B-3-C MS ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00034	U	0.0500	0.0499		mg/L		100	75 - 125
Boron	0.57		0.100	0.536	J3	mg/L		-34	75 - 125
Lithium	0.0032	U	0.0500	0.0497		mg/L		99	75 - 125

Lab Sample ID: 400-124027-B-3-D MSD ^5
Matrix: Water
Analysis Batch: 313677

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 313348

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	0.0556		mg/L		111	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0539		mg/L		108	75 - 125	1	20
Barium	0.014		0.0500	0.0622		mg/L		96	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0503		mg/L		101	75 - 125	0	20
Calcium	4.8		5.00	9.78		mg/L		100	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0511		mg/L		102	75 - 125	4	20
Cobalt	0.00093	I	0.0500	0.0510		mg/L		100	75 - 125	2	20
Lead	0.00035	U	0.0500	0.0495		mg/L		99	75 - 125	0	20
Molybdenum	0.00085	U	0.0500	0.0502		mg/L		100	75 - 125	1	20
Selenium	0.00060	I	0.0500	0.0536		mg/L		106	75 - 125	2	20
Thallium	0.000085	U	0.0100	0.00979		mg/L		98	75 - 125	2	20

Lab Sample ID: 400-124027-B-3-D MSD ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00034	U	0.0500	0.0501		mg/L		100	75 - 125	0	20
Boron	0.57		0.100	0.517	J3	mg/L		-53	75 - 125	4	20
Lithium	0.0032	U	0.0500	0.0506		mg/L		101	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-312961/14-A
Matrix: Water
Analysis Batch: 313274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312961

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		07/06/16 08:49	07/07/16 12:47	1

Lab Sample ID: LCS 400-312961/15-A
Matrix: Water
Analysis Batch: 313274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00100		mg/L		100	80 - 120

Lab Sample ID: 400-123973-A-3-B MS
Matrix: Water
Analysis Batch: 313274

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 312961

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00050		0.00201	0.00243		mg/L		95	80 - 120

Lab Sample ID: 400-123973-A-3-C MSD
Matrix: Water
Analysis Batch: 313274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 312961

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00050		0.00201	0.00249		mg/L		99	80 - 120	3	20

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

Lab Sample ID: MB 400-313032/1
Matrix: Water
Analysis Batch: 313032

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			07/06/16 14:48	1

Lab Sample ID: LCS 400-313032/2
Matrix: Water
Analysis Batch: 313032

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	274		mg/L		94	78 - 122

Lab Sample ID: 400-123912-K-11 DU
Matrix: Water
Analysis Batch: 313032

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	1400		1350		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-313078/6
Matrix: Water
Analysis Batch: 313078

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/06/16 07:09	1

Lab Sample ID: LCS 400-313078/7
Matrix: Water
Analysis Batch: 313078

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	31.2		mg/L		104	90 - 110

Lab Sample ID: 400-123868-B-1 MS
Matrix: Water
Analysis Batch: 313078

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	0.60	U	10.0	12.3	J3	mg/L		123	73 - 120

Lab Sample ID: 400-123868-B-1 MSD
Matrix: Water
Analysis Batch: 313078

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	0.60	U	10.0	12.4	J3	mg/L		124	73 - 120	1	8

Lab Sample ID: 400-123972-A-2 DU
Matrix: Water
Analysis Batch: 313078

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	3.0		2.80		mg/L		6	8

Lab Sample ID: MB 400-313323/6
Matrix: Water
Analysis Batch: 313323

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/07/16 14:34	1

Lab Sample ID: LCS 400-313323/7
Matrix: Water
Analysis Batch: 313323

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	31.1		mg/L		104	90 - 110

Lab Sample ID: 400-124075-A-4 MS
Matrix: Water
Analysis Batch: 313323

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	7.1		10.0	18.9		mg/L		118	73 - 120

Lab Sample ID: 400-124075-A-4 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313323

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.1		10.0	18.8		mg/L		117	73 - 120	1	8

Lab Sample ID: 400-124062-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313323

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	350		356		mg/L		1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-314606/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314606

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			07/17/16 16:23	1

Lab Sample ID: LCS 400-314606/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.28		mg/L		107	90 - 110

Lab Sample ID: 400-124007-E-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314606

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.6		1.00	5.46		mg/L		91	75 - 125

Lab Sample ID: 400-124007-E-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314606

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	4.6		1.00	5.46		mg/L		91	75 - 125	0	4

Lab Sample ID: 400-124474-A-2 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314606

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.76		0.760		mg/L		0	4

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 400-315304/3
Matrix: Water
Analysis Batch: 315304

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			07/21/16 16:23	1

Lab Sample ID: LCS 400-315304/4
Matrix: Water
Analysis Batch: 315304

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	4.11		mg/L		103	90 - 110

Lab Sample ID: 400-123962-4 MS
Matrix: Water
Analysis Batch: 315304

Client Sample ID: MW-306
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	1.05		mg/L		105	75 - 125

Lab Sample ID: 400-123962-4 MSD
Matrix: Water
Analysis Batch: 315304

Client Sample ID: MW-306
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	1.03		mg/L		103	75 - 125	2	4

Lab Sample ID: 400-124027-A-5 DU
Matrix: Water
Analysis Batch: 315304

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.24		0.240		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-313079/6
Matrix: Water
Analysis Batch: 313079

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			07/06/16 07:28	1

Lab Sample ID: LCS 400-313079/7
Matrix: Water
Analysis Batch: 313079

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	14.6		mg/L		97	90 - 110

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

Lab Sample ID: 400-123868-B-1 MS
Matrix: Water
Analysis Batch: 313079

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	4.4	I	10.0	15.9		mg/L		115	77 - 128

Lab Sample ID: 400-123868-B-1 MSD
Matrix: Water
Analysis Batch: 313079

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	4.4	I	10.0	15.8		mg/L		113	77 - 128	1	5

Lab Sample ID: 400-123744-A-18 DU
Matrix: Water
Analysis Batch: 313079

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	1.7	I	1.74	I	mg/L		0.2	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-259772/1-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259772

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01207	U	0.112	0.112	1.00	0.216	pCi/L	07/08/16 15:10	08/01/16 20:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:02*	*1*

Lab Sample ID: LCS 160-259772/2-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259772

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226			11.2	14.87		1.59	1.00	0.214	pCi/L	133	68 - 137

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.9*		*40 - 110*

Lab Sample ID: LCSD 160-259772/3-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259772

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	13.97		1.51	1.00	0.239	pCi/L	125	68 - 137	0.29	1

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

Lab Sample ID: LCSD 160-259772/3-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259772

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.7		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-259775/1-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259775

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3148	U	0.221	0.223	1.00	0.341	pCi/L	07/08/16 15:10	08/01/16 12:36	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110	07/08/16 15:10	08/01/16 12:36	1
Y Carrier	82.2		40 - 110	07/08/16 15:10	08/01/16 12:36	1

Lab Sample ID: LCS 160-259775/2-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259775

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	16.55		1.75	1.00	0.410	pCi/L	112	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: LCSD 160-259775/3-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259775

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.8	17.04		1.78	1.00	0.357	pCi/L	115	56 - 140	0.14	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	83.4		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: Brett Sorles	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: 1-1
Company: Gulf Power Company		Analysis Requested		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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Background	SSOW#:			

400-123962 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 - 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-100	7/5/16	1135	G	Water			X	X	X	X		
MW-107	7/5/16	1017		Water								
MW-108	7/5/16	0922		Water								
MW-306	7/5/16	1249		Water								
MW-307	7/5/16	1422		Water								
Dup-01	7/5/16	0917	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:

	Date/Time	Company		Date/Time	Company
Relinquished by:	5/7/16 1538	RDH	Received by:	5/11/16 1538	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: 11.4°C IR5

8/14/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-123962-1
SDG Number: Background

Login Number: 123962
List Number: 1
Creator: Siddoway, Benjamin

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	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	11.4°C, IR-5
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	

Certification Summary

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-123962-1
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-124027-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
8/10/2016 4:56:35 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 30
Chronicle 31
QC Association 37
QC Sample Results 42
Chain of Custody 51
Receipt Checklists 52
Certification Summary 53

Job ID: 400-124027-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-124027-1

RAD
Method(s) 904.0, 9320: Radium-228 Prep Batch 160-260024: The radium-228 detection goal was not met for the following samples due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 89767): (160-18059-B-1-B) and (160-18059-A-1-C MS). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium-228 prep batch 160-259775: A laboratory control sample and laboratory control sample duplicate were used instead of a sample duplicate for the following samples, in order to keep from fully consuming the sample. The samples were weighed at full aliquot.
MW-200 (400-124027-1), MW-201 (400-124027-2), MW-202 (400-124027-3), MW-203 (400-124027-4), MW-204 (400-124027-5), MW-206 (400-124027-6), EB-01 (400-124027-7), FB-01 (400-124027-8), DUP-02 (400-124027-9) and MW-205 (400-124027-10)

Method(s) PrecSep_0: Radium-228 Prep Batch 160-260024: The following samples were run at a reduced aliquot due to discoloration and sediment in the samples: MW-206 (400-124027-6).

Method(s) PrecSep-21: Radium-226 prep batch 160-259772: A laboratory control sample and laboratory control sample duplicate were used instead of a sample duplicate for the following samples, in order to keep from fully consuming the sample. The samples were weighed at full aliquot.
MW-200 (400-124027-1), MW-201 (400-124027-2), MW-202 (400-124027-3), MW-203 (400-124027-4), MW-204 (400-124027-5), MW-206 (400-124027-6), EB-01 (400-124027-7), FB-01 (400-124027-8), DUP-02 (400-124027-9) and MW-205 (400-124027-10)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-260021: The following samples were run at a reduced aliquot due to discoloration and sediment in the samples: MW-206 (400-124027-6).

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-124027-1), MW-201 (400-124027-2), MW-204 (400-124027-5), MW-206 (400-124027-6) and DUP-02 (400-124027-9). Elevated reporting limits (RLs) are provided.

Detection Summary

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-124027-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0051		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.068		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0015	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0017		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.018		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00040	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	920		5.0	2.5	mg/L	100		6020	Total Recoverable
Boron - DL2	42		2.0	0.84	mg/L	200		6020	Total Recoverable
Mercury	0.0023		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	7000		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	140		80	24	mg/L	40		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	450	I	500	140	mg/L	100		SM 4500 SO4 E	Total/NA
Field pH	4.86				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-124027-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.010		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.081		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.015		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0033		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.015		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00047	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	780		5.0	2.5	mg/L	100		6020	Total Recoverable
Boron - DL2	35		2.0	0.84	mg/L	200		6020	Total Recoverable
Lithium - RA	0.0086		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.0026		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4900		17	11	mg/L	1		SM 2540C	Total/NA
Chloride	2000		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.49		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	370		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	5.52				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-124027-3

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-124027-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00093	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00060	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.57		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.00013	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	11		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	18		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.61				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-124027-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00096	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	17		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0033		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0014		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00010	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - RA	0.79		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.00015	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	63		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-124027-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0080		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	69		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.017		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0014		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0033		0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-124027-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00031	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	6.5		0.25	0.11	mg/L	25		6020	Total Recoverable
Beryllium - RA	0.00064	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	730		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	67		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.24		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	390		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	4.54				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-124027-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.017		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.12		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0026		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0055		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.011		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.018		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.0010		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	150		5.0	2.1	mg/L	500		6020	Total Recoverable
Calcium - DL	2200		25	13	mg/L	500		6020	Total Recoverable
Beryllium - RA	0.00048	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Mercury	0.00070		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	8700		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	360		240	72	mg/L	120		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	750		500	140	mg/L	100		SM 4500 SO4 E	Total/NA
Field pH	4.15				SU	1		Field Sampling	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-124027-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - RA	0.39		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.000092	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Chloride	44		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-124027-8

This Detection Summary does not include radiochemical test results.

Client Sample ID: FB-01 (Continued) — Lab Sample ID: 400-124027-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - RA	0.25		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.00012	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4.0	I	5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-124027-9

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
Barium	0.080		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.014		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0032		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.015		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00048	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	52		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	780		10	5.0	mg/L	200		6020	Total Recoverable
Lithium - RA	0.0070		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.0028		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	5200		17	11	mg/L	1		SM 2540C	Total/NA
Chloride	2000		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.50		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	370		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	5.52				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-124027-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00051	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	20		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00099	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00044	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.54		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	45	I	50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	5.15				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124027-1	MW-200	Water	07/05/16 12:35	07/06/16 13:40
400-124027-2	MW-201	Water	07/06/16 07:19	07/06/16 13:40
400-124027-3	MW-202	Water	07/06/16 08:20	07/06/16 13:40
400-124027-4	MW-203	Water	07/05/16 16:00	07/06/16 13:40
400-124027-5	MW-204	Water	07/05/16 10:05	07/06/16 13:40
400-124027-6	MW-206	Water	07/05/16 13:30	07/06/16 13:40
400-124027-7	EB-01	Water	07/05/16 14:30	07/06/16 13:40
400-124027-8	FB-01	Water	07/05/16 14:40	07/06/16 13:40
400-124027-9	DUP-02	Water	07/06/16 06:19	07/06/16 13:40
400-124027-10	MW-205	Water	07/06/16 10:10	07/06/16 13:40

Client Sample ID: MW-200

Date Collected: 07/05/16 12:35
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-1

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		07/08/16 09:20	07/08/16 19:41	5
Arsenic	**0.0051**		0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:41	5
Barium	**0.068**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:41	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:41	5
Cobalt	**0.0015**	**I**	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:41	5
Lead	**0.0017**		0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:41	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:41	5
Selenium	**0.018**		0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:41	5
Thallium	**0.00040**	**I**	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:41	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**920**		5.0	2.5	mg/L		07/08/16 09:20	07/11/16 14:44	100

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**42**		2.0	0.84	mg/L		07/08/16 09:20	07/11/16 17:16	200

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 14:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 14:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0023**		0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 09:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7000**		25	17	mg/L			07/07/16 15:00	1
Chloride	**140**		80	24	mg/L			07/21/16 11:11	40
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			07/21/16 16:43	1
Sulfate	**450**	**I**	500	140	mg/L			07/21/16 15:27	100

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**9.79**		0.705	1.13	1.00	0.202	pCi/L	07/08/16 15:10	08/01/16 20:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:03*	*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**		0.841	1.53	1.00	0.475	pCi/L	07/08/16 15:10	08/01/16 12:45	1

Client Sample ID: MW-200
Date Collected: 07/05/16 12:35
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:45*	*1*
Y Carrier	*77.8*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:45*	*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	**23.6**		1.10	1.90	5.00	0.475	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.86**				SU			07/05/16 12:35	1

Client Sample ID: MW-201
Date Collected: 07/06/16 07:19
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-2
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		07/08/16 09:20	07/08/16 19:45	5
Arsenic	**0.010**		0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:45	5
Barium	**0.081**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:45	5
Cadmium	**0.015**		0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:45	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:45	5
Cobalt	**0.0033**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:45	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:45	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:45	5
Selenium	**0.015**		0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:45	5
Thallium	**0.00047**	**I**	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:45	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**780**		5.0	2.5	mg/L		07/08/16 09:20	07/11/16 14:53	100

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**35**		2.0	0.84	mg/L		07/08/16 09:20	07/11/16 17:20	200

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 14:48	5
Lithium	**0.0086**		0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 14:48	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0026**		0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 09:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4900**		17	11	mg/L			07/08/16 11:10	1
Chloride	**2000**		200	60	mg/L			07/21/16 10:03	100
Fluoride	**0.49**		0.10	0.032	mg/L			07/21/16 16:47	1
Sulfate	**370**		250	70	mg/L			07/21/16 15:47	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**10.5**		0.730	1.20	1.00	0.262	pCi/L	07/08/16 15:10	08/01/16 20:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:03*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**17.9**		0.916	1.89	1.00	0.411	pCi/L	07/08/16 15:10	08/01/16 12:45	1

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-201
Date Collected: 07/06/16 07:19
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-2
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110	07/08/16 15:10	08/01/16 12:45	1
Y Carrier	80.0		40 - 110	07/08/16 15:10	08/01/16 12:45	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	28.5		1.17	2.23	5.00	0.411	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.52				SU			07/06/16 07:19	1

Client Sample ID: MW-202

Date Collected: 07/06/16 08:20
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-3

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		07/08/16 09:20	07/08/16 19:50	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 19:50	5
Barium	**0.014**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 19:50	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 19:50	5
Calcium	**4.8**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 19:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 19:50	5
Cobalt	**0.00093**	**I**	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 19:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 19:50	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 19:50	5
Selenium	**0.00060**	**I**	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 19:50	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 19:50	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 14:58	5
Boron	**0.57**		0.050	0.021	mg/L		07/08/16 09:20	07/11/16 14:58	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 14:58	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00013**	**I**	0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 10:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		5.0	3.4	mg/L			07/08/16 11:10	1
Chloride	**11**		2.0	0.60	mg/L			07/21/16 08:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 16:49	1
Sulfate	**18**		10	2.8	mg/L			07/21/16 15:27	2

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.506**		0.193	0.198	1.00	0.224	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.598**		0.292	0.297	1.00	0.430	pCi/L	07/08/16 15:10	08/01/16 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:45*	*1*
Y Carrier	*80.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:45*	*1*

Client Sample ID: MW-202

Date Collected: 07/06/16 08:20
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-3

Matrix: Water

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	1.10		0.350	0.357	5.00	0.430	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.61				SU			07/06/16 08:20	1

Client Sample ID: MW-203

Date Collected: 07/05/16 16:00
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-4

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		07/08/16 09:20	07/08/16 20:12	5
Arsenic	**0.00096**	**I**	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:12	5
Barium	**0.044**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:12	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:12	5
Calcium	**17**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 20:12	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:12	5
Cobalt	**0.0033**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:12	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:12	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:12	5
Selenium	**0.0014**		0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:12	5
Thallium	**0.00010**	**I**	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:12	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 15:20	5
Boron	**0.79**		0.050	0.021	mg/L		07/08/16 09:20	07/11/16 15:20	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 15:20	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00015**	**I**	0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 10:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**96**		5.0	3.4	mg/L			07/07/16 15:00	1
Chloride	**12**		2.0	0.60	mg/L			07/21/16 08:40	1
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			07/21/16 16:52	1
Sulfate	**63**		25	7.0	mg/L			07/21/16 15:27	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.24**		0.342	0.397	1.00	0.227	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.69**		0.516	0.672	1.00	0.451	pCi/L	07/08/16 15:10	08/01/16 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203
Date Collected: 07/05/16 16:00
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-4
Matrix: Water

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	6.93		0.619	0.781	5.00	0.451	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.77				SU			07/05/16 16:00	1

Client Sample ID: MW-204

Date Collected: 07/05/16 10:05
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-5

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		07/08/16 09:20	07/08/16 20:17	5
Arsenic	**0.0080**		0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:17	5
Barium	**0.024**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:17	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:17	5
Calcium	**69**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 20:17	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:17	5
Cobalt	**0.017**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:17	5
Lead	**0.0014**		0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:17	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:17	5
Selenium	**0.0033**		0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:17	5
Thallium	**0.00031**	**I**	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:17	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.5**		0.25	0.11	mg/L		07/08/16 09:20	07/11/16 15:43	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00064**	**I**	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 15:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 15:38	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		07/07/16 08:59	07/11/16 10:08	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**730**		5.0	3.4	mg/L			07/07/16 15:00	1
Chloride	**67**		4.0	1.2	mg/L			07/21/16 09:25	2
Fluoride	**0.24**		0.10	0.032	mg/L			07/21/16 17:03	1
Sulfate	**390**		250	70	mg/L			07/21/16 15:47	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.55**		0.358	0.425	1.00	0.185	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**13.6**		0.799	1.49	1.00	0.416	pCi/L	07/08/16 15:10	08/01/16 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*
Y Carrier	*85.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204
Date Collected: 07/05/16 10:05
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-5
Matrix: Water

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	16.2		0.876	1.55	5.00	0.416	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.54				SU			07/05/16 10:05	1

Client Sample ID: MW-206

Date Collected: 07/05/16 13:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-6

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		07/08/16 09:20	07/08/16 20:21	5
Arsenic	**0.017**		0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:21	5
Barium	**0.12**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:21	5
Cadmium	**0.0026**		0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:21	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:21	5
Cobalt	**0.0055**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:21	5
Lead	**0.011**		0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:21	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/08/16 20:21	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:21	5
Selenium	**0.018**		0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:21	5
Thallium	**0.0010**		0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:21	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**150**		5.0	2.1	mg/L		07/08/16 09:20	07/11/16 15:52	500
Calcium	**2200**		25	13	mg/L		07/08/16 09:20	07/11/16 15:52	500

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00048**	**I**	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 15:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00070**		0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 10:10	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8700**		50	34	mg/L			07/07/16 15:00	1
Chloride	**360**		240	72	mg/L			07/21/16 10:59	120
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			07/21/16 17:10	1
Sulfate	**750**		500	140	mg/L			07/21/16 15:31	100

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**15.7**		1.13	1.80	1.00	0.417	pCi/L	07/11/16 20:24	08/02/16 07:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*07/11/16 20:24*	*08/02/16 07:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**17.3**		1.21	2.00	1.00	0.677	pCi/L	07/11/16 20:57	08/01/16 12:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*07/11/16 20:57*	*08/01/16 12:37*	*1*
Y Carrier	*92.3*		*40 - 110*	*07/11/16 20:57*	*08/01/16 12:37*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-206
Date Collected: 07/05/16 13:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-6
Matrix: Water

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		1.65	2.69	5.00	0.677	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.15				SU			07/05/16 13:30	1

Client Sample ID: EB-01
Date Collected: 07/05/16 14:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-7
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		07/08/16 09:20	07/08/16 20:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:39	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:39	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 15:56	5
Boron	**0.39**		0.050	0.021	mg/L		07/08/16 09:20	07/11/16 15:56	5
Calcium	0.13	U	0.25	0.13	mg/L		07/08/16 09:20	07/11/16 15:56	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 15:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000092**	**I**	0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 10:29	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			07/07/16 15:00	1
Chloride	**44**		4.0	1.2	mg/L			07/21/16 09:25	2
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 17:12	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/21/16 15:02	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0376	U	0.119	0.120	1.00	0.244	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0792	U	0.226	0.226	1.00	0.418	pCi/L	07/08/16 15:10	08/01/16 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*
Y Carrier	*81.5*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: EB-01
Date Collected: 07/05/16 14:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-7
Matrix: Water

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	-0.117	U	0.256	0.256	5.00	0.418	pCi/L		08/04/16 00:05	1

Client Sample ID: FB-01

Date Collected: 07/05/16 14:40
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-8

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		07/08/16 09:20	07/08/16 20:44	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:44	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:44	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:44	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:44	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:44	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:44	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:44	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:44	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:44	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 16:01	5
Boron	**0.25**		0.050	0.021	mg/L		07/08/16 09:20	07/11/16 16:01	5
Calcium	0.13	U	0.25	0.13	mg/L		07/08/16 09:20	07/11/16 16:01	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 16:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00012**	**I**	0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 10:12	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4.0**	**I**	5.0	3.4	mg/L			07/07/16 15:00	1
Chloride	0.60	U	2.0	0.60	mg/L			07/21/16 08:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 17:15	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/21/16 15:02	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0759	U	0.0807	0.0809	1.00	0.203	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0478	U	0.274	0.274	1.00	0.482	pCi/L	07/08/16 15:10	08/01/16 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*
Y Carrier	*65.8*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: FB-01
Date Collected: 07/05/16 14:40
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-8
Matrix: Water

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	-0.0281	U	0.285	0.285	5.00	0.482	pCi/L		08/04/16 00:05	1

Client Sample ID: DUP-02

Date Collected: 07/06/16 06:19
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-9

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		07/08/16 09:20	07/08/16 20:48	5
Arsenic	**0.011**		0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:48	5
Barium	**0.080**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:48	5
Cadmium	**0.014**		0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:48	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:48	5
Cobalt	**0.0032**		0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:48	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:48	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:48	5
Selenium	**0.015**		0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:48	5
Thallium	**0.00048**	**I**	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:48	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**52**		2.0	0.84	mg/L		07/08/16 09:20	07/11/16 16:10	200
Calcium	**780**		10	5.0	mg/L		07/08/16 09:20	07/11/16 16:10	200

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 16:05	5
Lithium	**0.0070**		0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 16:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0028**		0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 10:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5200**		17	11	mg/L			07/08/16 11:10	1
Chloride	**2000**		200	60	mg/L			07/21/16 10:03	100
Fluoride	**0.50**		0.10	0.032	mg/L			07/21/16 17:18	1
Sulfate	**370**		250	70	mg/L			07/21/16 15:47	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**11.4**		0.753	1.27	1.00	0.191	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**16.5**		0.876	1.75	1.00	0.416	pCi/L	07/08/16 15:10	08/01/16 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*

Client Sample ID: DUP-02
Date Collected: 07/06/16 06:19
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-9
Matrix: Water

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		1.16	2.17	5.00	0.416	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.52				SU			07/06/16 06:19	1

Client Sample ID: MW-205
Date Collected: 07/06/16 10:10
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-10
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		07/08/16 09:20	07/08/16 20:53	5
Arsenic	**0.00051**	**I**	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 20:53	5
Barium	**0.012**		0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 20:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 20:53	5
Calcium	**20**		0.25	0.13	mg/L		07/08/16 09:20	07/08/16 20:53	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 20:53	5
Cobalt	**0.00099**	**I**	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 20:53	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 20:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 20:53	5
Selenium	**0.00044**	**I**	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 20:53	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 20:53	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 16:14	5
Boron	**0.54**		0.050	0.021	mg/L		07/08/16 09:20	07/11/16 16:14	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 16:14	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		07/07/16 08:59	07/11/16 10:14	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**70**		5.0	3.4	mg/L			07/08/16 11:10	1
Chloride	**8.2**		2.0	0.60	mg/L			07/21/16 08:43	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 17:21	1
Sulfate	**45**	**I**	50	14	mg/L			07/21/16 15:35	10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.618**		0.226	0.232	1.00	0.266	pCi/L	07/08/16 15:10	08/01/16 20:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.593**		0.305	0.310	1.00	0.452	pCi/L	07/08/16 15:10	08/01/16 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*
Y Carrier	*75.1*		*40 - 110*	*07/08/16 15:10*	*08/01/16 12:44*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205
Date Collected: 07/06/16 10:10
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-10
Matrix: Water

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	1.21		0.380	0.388	5.00	0.452	pCi/L		08/04/16 00:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.15				SU			07/06/16 10:10	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-200

Date Collected: 07/05/16 12:35
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:41	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 14:39	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	313813	07/11/16 14:44	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	313813	07/11/16 17:16	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 09:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313246	07/07/16 15:00	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		40	315325	07/21/16 11:11	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:43	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		100	315326	07/21/16 15:27	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/05/16 12:35	BWS	TAL PEN

Client Sample ID: MW-201

Date Collected: 07/06/16 07:19
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:45	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 14:48	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	313813	07/11/16 14:53	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	313813	07/11/16 17:20	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 09:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313386	07/08/16 11:10	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	315325	07/21/16 10:03	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:47	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	315326	07/21/16 15:47	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262856	08/01/16 20:03	RTM	TAL SL

Client Sample ID: MW-201

Date Collected: 07/06/16 07:19
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/06/16 07:19	BWS	TAL PEN

Client Sample ID: MW-202

Date Collected: 07/06/16 08:20
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 19:50	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 14:58	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313386	07/08/16 11:10	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	315326	07/21/16 15:27	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:45	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/06/16 08:20	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 07/05/16 16:00
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:12	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 15:20	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313246	07/07/16 15:00	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 16:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	315326	07/21/16 15:27	LSS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203

Date Collected: 07/05/16 16:00
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/05/16 16:00	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 07/05/16 10:05
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:17	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 15:38	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	313813	07/11/16 15:43	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313246	07/07/16 15:00	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	315325	07/21/16 09:25	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:03	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	315326	07/21/16 15:47	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/05/16 10:05	BWS	TAL PEN

Client Sample ID: MW-206

Date Collected: 07/05/16 13:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:21	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 15:47	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	500	313813	07/11/16 15:52	RJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-206

Date Collected: 07/05/16 13:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313246	07/07/16 15:00	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		120	315325	07/21/16 10:59	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:10	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		100	315326	07/21/16 15:31	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			260021	07/11/16 20:24	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:24	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260024	07/11/16 20:57	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 12:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/05/16 13:30	BWS	TAL PEN

Client Sample ID: EB-01

Date Collected: 07/05/16 14:30
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:39	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 15:56	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313246	07/07/16 15:00	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	315325	07/21/16 09:25	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:12	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	315326	07/21/16 15:02	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL

Client Sample ID: FB-01

Date Collected: 07/05/16 14:40
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:44	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN

Client Sample ID: FB-01

Lab Sample ID: 400-124027-8

Date Collected: 07/05/16 14:40

Matrix: Water

Date Received: 07/06/16 13:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 16:01	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313246	07/07/16 15:00	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:40	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	315326	07/21/16 15:02	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL

Client Sample ID: DUP-02

Lab Sample ID: 400-124027-9

Date Collected: 07/06/16 06:19

Matrix: Water

Date Received: 07/06/16 13:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:48	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 16:05	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	313813	07/11/16 16:10	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313386	07/08/16 11:10	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	315325	07/21/16 10:03	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	315326	07/21/16 15:47	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/06/16 06:19	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205

Date Collected: 07/06/16 10:10
Date Received: 07/06/16 13:40

Lab Sample ID: 400-124027-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313677	07/08/16 20:53	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		313348	07/08/16 09:20	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	313813	07/11/16 16:14	RJB	TAL PEN
Total/NA	Prep	7470A			313186	07/07/16 08:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313386	07/08/16 11:10	CAC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:43	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	315326	07/21/16 15:35	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259772	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9315		1	262857	08/01/16 20:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259775	07/08/16 15:10	SCB	TAL SL
Total/NA	Analysis	9320		1	262856	08/01/16 12:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263368	08/04/16 00:05	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317110	07/06/16 10:10	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 313186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	7470A	
400-124027-2	MW-201	Total/NA	Water	7470A	
400-124027-3	MW-202	Total/NA	Water	7470A	
400-124027-4	MW-203	Total/NA	Water	7470A	
400-124027-5	MW-204	Total/NA	Water	7470A	
400-124027-6	MW-206	Total/NA	Water	7470A	
400-124027-7	EB-01	Total/NA	Water	7470A	
400-124027-8	FB-01	Total/NA	Water	7470A	
400-124027-9	DUP-02	Total/NA	Water	7470A	
400-124027-10	MW-205	Total/NA	Water	7470A	
MB 400-313186/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-313186/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-124027-1 MS	MW-200	Total/NA	Water	7470A	
400-124027-1 MSD	MW-200	Total/NA	Water	7470A	

Prep Batch: 313348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total Recoverable	Water	3005A	
400-124027-1 - RA	MW-200	Total Recoverable	Water	3005A	
400-124027-1 - DL2	MW-200	Total Recoverable	Water	3005A	
400-124027-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-124027-2 - RA	MW-201	Total Recoverable	Water	3005A	
400-124027-2	MW-201	Total Recoverable	Water	3005A	
400-124027-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-124027-2 - DL2	MW-201	Total Recoverable	Water	3005A	
400-124027-3 - RA	MW-202	Total Recoverable	Water	3005A	
400-124027-3	MW-202	Total Recoverable	Water	3005A	
400-124027-4	MW-203	Total Recoverable	Water	3005A	
400-124027-4 - RA	MW-203	Total Recoverable	Water	3005A	
400-124027-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-124027-5 - RA	MW-204	Total Recoverable	Water	3005A	
400-124027-5	MW-204	Total Recoverable	Water	3005A	
400-124027-6 - DL	MW-206	Total Recoverable	Water	3005A	
400-124027-6 - RA	MW-206	Total Recoverable	Water	3005A	
400-124027-6	MW-206	Total Recoverable	Water	3005A	
400-124027-7 - RA	EB-01	Total Recoverable	Water	3005A	
400-124027-7	EB-01	Total Recoverable	Water	3005A	
400-124027-8	FB-01	Total Recoverable	Water	3005A	
400-124027-8 - RA	FB-01	Total Recoverable	Water	3005A	
400-124027-9 - RA	DUP-02	Total Recoverable	Water	3005A	
400-124027-9	DUP-02	Total Recoverable	Water	3005A	
400-124027-9 - DL	DUP-02	Total Recoverable	Water	3005A	
400-124027-10	MW-205	Total Recoverable	Water	3005A	
400-124027-10 - RA	MW-205	Total Recoverable	Water	3005A	
MB 400-313348/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-313348/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124027-3 MS	MW-202	Total Recoverable	Water	3005A	
400-124027-3 MS - RA	MW-202	Total Recoverable	Water	3005A	
400-124027-3 MSD	MW-202	Total Recoverable	Water	3005A	
400-124027-3 MSD - RA	MW-202	Total Recoverable	Water	3005A	

Metals (Continued)

Analysis Batch: 313677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total Recoverable	Water	6020	313348
400-124027-2	MW-201	Total Recoverable	Water	6020	313348
400-124027-3	MW-202	Total Recoverable	Water	6020	313348
400-124027-4	MW-203	Total Recoverable	Water	6020	313348
400-124027-5	MW-204	Total Recoverable	Water	6020	313348
400-124027-6	MW-206	Total Recoverable	Water	6020	313348
400-124027-7	EB-01	Total Recoverable	Water	6020	313348
400-124027-8	FB-01	Total Recoverable	Water	6020	313348
400-124027-9	DUP-02	Total Recoverable	Water	6020	313348
400-124027-10	MW-205	Total Recoverable	Water	6020	313348
MB 400-313348/1-A ^5	Method Blank	Total Recoverable	Water	6020	313348
LCS 400-313348/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	313348
400-124027-3 MS	MW-202	Total Recoverable	Water	6020	313348
400-124027-3 MSD	MW-202	Total Recoverable	Water	6020	313348

Analysis Batch: 313753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	7470A	313186
400-124027-2	MW-201	Total/NA	Water	7470A	313186
400-124027-3	MW-202	Total/NA	Water	7470A	313186
400-124027-4	MW-203	Total/NA	Water	7470A	313186
400-124027-5	MW-204	Total/NA	Water	7470A	313186
400-124027-6	MW-206	Total/NA	Water	7470A	313186
400-124027-7	EB-01	Total/NA	Water	7470A	313186
400-124027-8	FB-01	Total/NA	Water	7470A	313186
400-124027-9	DUP-02	Total/NA	Water	7470A	313186
400-124027-10	MW-205	Total/NA	Water	7470A	313186
MB 400-313186/14-A	Method Blank	Total/NA	Water	7470A	313186
LCS 400-313186/15-A	Lab Control Sample	Total/NA	Water	7470A	313186
400-124027-1 MS	MW-200	Total/NA	Water	7470A	313186
400-124027-1 MSD	MW-200	Total/NA	Water	7470A	313186

Analysis Batch: 313813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1 - RA	MW-200	Total Recoverable	Water	6020	313348
400-124027-1 - DL	MW-200	Total Recoverable	Water	6020	313348
400-124027-1 - DL2	MW-200	Total Recoverable	Water	6020	313348
400-124027-2 - RA	MW-201	Total Recoverable	Water	6020	313348
400-124027-2 - DL	MW-201	Total Recoverable	Water	6020	313348
400-124027-2 - DL2	MW-201	Total Recoverable	Water	6020	313348
400-124027-3 - RA	MW-202	Total Recoverable	Water	6020	313348
400-124027-4 - RA	MW-203	Total Recoverable	Water	6020	313348
400-124027-5 - RA	MW-204	Total Recoverable	Water	6020	313348
400-124027-5 - DL	MW-204	Total Recoverable	Water	6020	313348
400-124027-6 - RA	MW-206	Total Recoverable	Water	6020	313348
400-124027-6 - DL	MW-206	Total Recoverable	Water	6020	313348
400-124027-7 - RA	EB-01	Total Recoverable	Water	6020	313348
400-124027-8 - RA	FB-01	Total Recoverable	Water	6020	313348
400-124027-9 - RA	DUP-02	Total Recoverable	Water	6020	313348
400-124027-9 - DL	DUP-02	Total Recoverable	Water	6020	313348
400-124027-10 - RA	MW-205	Total Recoverable	Water	6020	313348

Metals (Continued)

Analysis Batch: 313813 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-313348/1-A ^5	Method Blank	Total Recoverable	Water	6020	313348
LCS 400-313348/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	313348
400-124027-3 MS - RA	MW-202	Total Recoverable	Water	6020	313348
400-124027-3 MSD - RA	MW-202	Total Recoverable	Water	6020	313348

General Chemistry

Analysis Batch: 313246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	SM 2540C	
400-124027-4	MW-203	Total/NA	Water	SM 2540C	
400-124027-5	MW-204	Total/NA	Water	SM 2540C	
400-124027-6	MW-206	Total/NA	Water	SM 2540C	
400-124027-7	EB-01	Total/NA	Water	SM 2540C	
400-124027-8	FB-01	Total/NA	Water	SM 2540C	
MB 400-313246/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-313246/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-123995-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 313386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-2	MW-201	Total/NA	Water	SM 2540C	
400-124027-3	MW-202	Total/NA	Water	SM 2540C	
400-124027-9	DUP-02	Total/NA	Water	SM 2540C	
400-124027-10	MW-205	Total/NA	Water	SM 2540C	
MB 400-313386/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-313386/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124027-2 DU	MW-201	Total/NA	Water	SM 2540C	

Analysis Batch: 315304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	SM 4500 F C	
400-124027-2	MW-201	Total/NA	Water	SM 4500 F C	
400-124027-3	MW-202	Total/NA	Water	SM 4500 F C	
400-124027-4	MW-203	Total/NA	Water	SM 4500 F C	
400-124027-5	MW-204	Total/NA	Water	SM 4500 F C	
400-124027-6	MW-206	Total/NA	Water	SM 4500 F C	
400-124027-7	EB-01	Total/NA	Water	SM 4500 F C	
400-124027-8	FB-01	Total/NA	Water	SM 4500 F C	
400-124027-9	DUP-02	Total/NA	Water	SM 4500 F C	
400-124027-10	MW-205	Total/NA	Water	SM 4500 F C	
MB 400-315304/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-315304/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-123962-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-123962-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-124027-5 DU	MW-204	Total/NA	Water	SM 4500 F C	

Analysis Batch: 315325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 315325 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-124027-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-124027-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-124027-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-124027-6	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-124027-7	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-124027-8	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-124027-9	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-124027-10	MW-205	Total/NA	Water	SM 4500 Cl- E	
MB 400-315325/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-315325/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-124027-8 MS	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-124027-8 MSD	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-124027-9 DU	DUP-02	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 315326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-124027-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-124027-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-124027-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-124027-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-124027-6	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-124027-7	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-124027-8	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-124027-9	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-124027-10	MW-205	Total/NA	Water	SM 4500 SO4 E	
MB 400-315326/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-315326/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-124341-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-124341-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-124027-10 DU	MW-205	Total/NA	Water	SM 4500 SO4 E	

Rad

Prep Batch: 259772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	PrecSep-21	
400-124027-2	MW-201	Total/NA	Water	PrecSep-21	
400-124027-3	MW-202	Total/NA	Water	PrecSep-21	
400-124027-4	MW-203	Total/NA	Water	PrecSep-21	
400-124027-5	MW-204	Total/NA	Water	PrecSep-21	
400-124027-7	EB-01	Total/NA	Water	PrecSep-21	
400-124027-8	FB-01	Total/NA	Water	PrecSep-21	
400-124027-9	DUP-02	Total/NA	Water	PrecSep-21	
400-124027-10	MW-205	Total/NA	Water	PrecSep-21	
MB 160-259772/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259772/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-259772/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 259775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	PrecSep_0	
400-124027-2	MW-201	Total/NA	Water	PrecSep_0	
400-124027-3	MW-202	Total/NA	Water	PrecSep_0	
400-124027-4	MW-203	Total/NA	Water	PrecSep_0	
400-124027-5	MW-204	Total/NA	Water	PrecSep_0	
400-124027-7	EB-01	Total/NA	Water	PrecSep_0	
400-124027-8	FB-01	Total/NA	Water	PrecSep_0	
400-124027-9	DUP-02	Total/NA	Water	PrecSep_0	
400-124027-10	MW-205	Total/NA	Water	PrecSep_0	
MB 160-259775/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259775/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-259775/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 260021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-6	MW-206	Total/NA	Water	PrecSep-21	
MB 160-260021/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-260021/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-18059-A-1-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
160-18059-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 260024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-6	MW-206	Total/NA	Water	PrecSep_0	
MB 160-260024/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-260024/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-18059-A-1-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
160-18059-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 317110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124027-1	MW-200	Total/NA	Water	Field Sampling	
400-124027-2	MW-201	Total/NA	Water	Field Sampling	
400-124027-3	MW-202	Total/NA	Water	Field Sampling	
400-124027-4	MW-203	Total/NA	Water	Field Sampling	
400-124027-5	MW-204	Total/NA	Water	Field Sampling	
400-124027-6	MW-206	Total/NA	Water	Field Sampling	
400-124027-9	DUP-02	Total/NA	Water	Field Sampling	
400-124027-10	MW-205	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-313348/1-A ^5
Matrix: Water
Analysis Batch: 313677

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		07/08/16 09:20	07/08/16 18:15	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/08/16 09:20	07/08/16 18:15	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/08/16 09:20	07/08/16 18:15	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/08/16 18:15	5
Calcium	0.13	U	0.25	0.13	mg/L		07/08/16 09:20	07/08/16 18:15	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/08/16 09:20	07/08/16 18:15	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/08/16 09:20	07/08/16 18:15	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/08/16 09:20	07/08/16 18:15	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/08/16 09:20	07/08/16 18:15	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/08/16 09:20	07/08/16 18:15	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/08/16 09:20	07/08/16 18:15	5

Lab Sample ID: MB 400-313348/1-A ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/08/16 09:20	07/11/16 13:01	5
Boron	0.021	U	0.050	0.021	mg/L		07/08/16 09:20	07/11/16 13:01	5
Calcium	0.13	U	0.25	0.13	mg/L		07/08/16 09:20	07/11/16 13:01	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/08/16 09:20	07/11/16 13:01	5

Lab Sample ID: LCS 400-313348/2-A ^1
Matrix: Water
Analysis Batch: 313677

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0558		mg/L		112	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Barium	0.0500	0.0485		mg/L		97	80 - 120
Cadmium	0.0500	0.0502		mg/L		100	80 - 120
Calcium	5.00	4.85		mg/L		97	80 - 120
Chromium	0.0500	0.0501		mg/L		100	80 - 120
Cobalt	0.0500	0.0494		mg/L		99	80 - 120
Lead	0.0500	0.0511		mg/L		102	80 - 120
Molybdenum	0.0500	0.0499		mg/L		100	80 - 120
Selenium	0.0500	0.0523		mg/L		105	80 - 120
Thallium	0.0100	0.00985		mg/L		98	80 - 120

Lab Sample ID: LCS 400-313348/2-A ^1
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0500		mg/L		100	80 - 120
Boron	0.100	0.0992		mg/L		99	80 - 120
Calcium	5.00	4.88		mg/L		98	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120

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

Lab Sample ID: 400-124027-3 MS
Matrix: Water
Analysis Batch: 313677

Client Sample ID: MW-202
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0569		mg/L		114	75 - 125
Arsenic	0.00046	U	0.0500	0.0533		mg/L		107	75 - 125
Barium	0.014		0.0500	0.0617		mg/L		95	75 - 125
Cadmium	0.00034	U	0.0500	0.0504		mg/L		101	75 - 125
Calcium	4.8		5.00	9.66		mg/L		98	75 - 125
Chromium	0.0011	U	0.0500	0.0489		mg/L		98	75 - 125
Cobalt	0.00093	I	0.0500	0.0501		mg/L		98	75 - 125
Lead	0.00035	U	0.0500	0.0493		mg/L		99	75 - 125
Molybdenum	0.00085	U	0.0500	0.0499		mg/L		100	75 - 125
Selenium	0.00060	I	0.0500	0.0525		mg/L		104	75 - 125
Thallium	0.000085	U	0.0100	0.00961		mg/L		96	75 - 125

Lab Sample ID: 400-124027-3 MSD
Matrix: Water
Analysis Batch: 313677

Client Sample ID: MW-202
Prep Type: Total Recoverable
Prep Batch: 313348

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	0.0556		mg/L		111	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0539		mg/L		108	75 - 125	1	20
Barium	0.014		0.0500	0.0622		mg/L		96	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0503		mg/L		101	75 - 125	0	20
Calcium	4.8		5.00	9.78		mg/L		100	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0511		mg/L		102	75 - 125	4	20
Cobalt	0.00093	I	0.0500	0.0510		mg/L		100	75 - 125	2	20
Lead	0.00035	U	0.0500	0.0495		mg/L		99	75 - 125	0	20
Molybdenum	0.00085	U	0.0500	0.0502		mg/L		100	75 - 125	1	20
Selenium	0.00060	I	0.0500	0.0536		mg/L		106	75 - 125	2	20
Thallium	0.000085	U	0.0100	0.00979		mg/L		98	75 - 125	2	20

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

Lab Sample ID: 400-124027-3 MS
Matrix: Water
Analysis Batch: 313813

Client Sample ID: MW-202
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium - RA	0.00034	U	0.0500	0.0499		mg/L		100	75 - 125
Boron - RA	0.57		0.100	0.536	J3	mg/L		-34	75 - 125
Lithium - RA	0.0032	U	0.0500	0.0497		mg/L		99	75 - 125

Lab Sample ID: 400-124027-3 MSD
Matrix: Water
Analysis Batch: 313813

Client Sample ID: MW-202
Prep Type: Total Recoverable
Prep Batch: 313348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium - RA	0.00034	U	0.0500	0.0501		mg/L		100	75 - 125	0	20
Boron - RA	0.57		0.100	0.517	J3	mg/L		-53	75 - 125	4	20
Lithium - RA	0.0032	U	0.0500	0.0506		mg/L		101	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-313186/14-A
Matrix: Water
Analysis Batch: 313753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313186

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		07/07/16 08:59	07/11/16 09:40	1

Lab Sample ID: LCS 400-313186/15-A
Matrix: Water
Analysis Batch: 313753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313186

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.00100		mg/L		99	80 - 120		

Lab Sample ID: 400-124027-1 MS
Matrix: Water
Analysis Batch: 313753

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 313186

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.0023		0.00201	0.00412		mg/L		88	80 - 120		

Lab Sample ID: 400-124027-1 MSD
Matrix: Water
Analysis Batch: 313753

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 313186

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0023		0.00201	0.00425		mg/L		94	80 - 120	3	20

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

Lab Sample ID: MB 400-313246/1
Matrix: Water
Analysis Batch: 313246

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			07/07/16 15:00	1

Lab Sample ID: LCS 400-313246/2
Matrix: Water
Analysis Batch: 313246

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	320		mg/L		109	78 - 122		

Lab Sample ID: 400-123995-D-1 DU
Matrix: Water
Analysis Batch: 313246

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			198		mg/L				1	5

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

Lab Sample ID: MB 400-313386/1
Matrix: Water
Analysis Batch: 313386

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			07/08/16 11:10	1

Lab Sample ID: LCS 400-313386/2
Matrix: Water
Analysis Batch: 313386

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	274		mg/L		94	78 - 122

Lab Sample ID: 400-124027-2 DU
Matrix: Water
Analysis Batch: 313386

Client Sample ID: MW-201
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	4900		4950		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-315325/6
Matrix: Water
Analysis Batch: 315325

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/21/16 07:19	1

Lab Sample ID: LCS 400-315325/7
Matrix: Water
Analysis Batch: 315325

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	31.0		mg/L		103	90 - 110

Lab Sample ID: 400-124027-8 MS
Matrix: Water
Analysis Batch: 315325

Client Sample ID: FB-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	0.60	U	10.0	10.5		mg/L		105	73 - 120

Lab Sample ID: 400-124027-8 MSD
Matrix: Water
Analysis Batch: 315325

Client Sample ID: FB-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	0.60	U	10.0	10.4		mg/L		104	73 - 120	1	8

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

Lab Sample ID: 400-124027-9 DU
Matrix: Water
Analysis Batch: 315325

Client Sample ID: DUP-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	2000			1990		mg/L				3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-315304/3
Matrix: Water
Analysis Batch: 315304

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			07/21/16 16:23	1

Lab Sample ID: LCS 400-315304/4
Matrix: Water
Analysis Batch: 315304

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	4.11		mg/L		103	90 - 110		

Lab Sample ID: 400-123962-A-4 MS
Matrix: Water
Analysis Batch: 315304

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	1.05		mg/L		105	75 - 125		

Lab Sample ID: 400-123962-A-4 MSD
Matrix: Water
Analysis Batch: 315304

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	1.03		mg/L		103	75 - 125	2	4

Lab Sample ID: 400-124027-5 DU
Matrix: Water
Analysis Batch: 315304

Client Sample ID: MW-204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.24			0.240		mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-315326/6
Matrix: Water
Analysis Batch: 315326

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			07/21/16 07:21	1

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

Lab Sample ID: LCS 400-315326/7
Matrix: Water
Analysis Batch: 315326

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	14.6		mg/L		98	90 - 110		

Lab Sample ID: 400-124341-A-4 MS
Matrix: Water
Analysis Batch: 315326

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	1.4	U	10.0	10.9		mg/L		109	77 - 128		

Lab Sample ID: 400-124341-A-4 MSD
Matrix: Water
Analysis Batch: 315326

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	1.4	U	10.0	10.9		mg/L		109	77 - 128	0	5

Lab Sample ID: 400-124027-10 DU
Matrix: Water
Analysis Batch: 315326

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	45	I		44.4	I	mg/L				0.8	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-259772/1-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259772

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01207	U	0.112	0.112	1.00	0.216	pCi/L	07/08/16 15:10	08/01/16 20:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*07/08/16 15:10*	*08/01/16 20:02*	*1*

Lab Sample ID: LCS 160-259772/2-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259772

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	14.87		1.59	1.00	0.214	pCi/L	133	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.9*		*40 - 110*

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

Lab Sample ID: LCSD 160-259772/3-A
Matrix: Water
Analysis Batch: 262856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259772

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	13.97		1.51	1.00	0.239	pCi/L	125	68 - 137	0.29	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*

Lab Sample ID: MB 160-260021/1-A
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260021

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1068	U	0.118	0.118	1.00	0.191	pCi/L	07/11/16 20:24	08/02/16 07:18	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*07/11/16 20:24*	*08/02/16 07:18*	*1*

Lab Sample ID: LCS 160-260021/2-A
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260021

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	15.22		1.60	1.00	0.198	pCi/L	136	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*79.8*		*40 - 110*

Lab Sample ID: 160-18059-A-1-A MS
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 260021

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.334	U	22.3	26.12		2.95	1.00	0.476	pCi/L	117	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*57.8*		*40 - 110*

Lab Sample ID: 160-18059-A-1-B MSD
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 260021

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	0.334	U	22.3	25.01		2.76	1.00	0.533	pCi/L	112	75 - 138	0.19	1

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

Lab Sample ID: 160-18059-A-1-B MSD
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 260021

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	75.2		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-259775/1-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259775

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3148	U	0.221	0.223	1.00	0.341	pCi/L	07/08/16 15:10	08/01/16 12:36	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110	07/08/16 15:10	08/01/16 12:36	1
Y Carrier	82.2		40 - 110	07/08/16 15:10	08/01/16 12:36	1

Lab Sample ID: LCS 160-259775/2-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259775

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	16.55		1.75	1.00	0.410	pCi/L	112	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: LCSD 160-259775/3-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259775

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.8	17.04		1.78	1.00	0.357	pCi/L	115	56 - 140	0.14	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	83.4		40 - 110

Lab Sample ID: MB 160-260024/1-A
Matrix: Water
Analysis Batch: 262857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260024

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02814	U	0.219	0.219	1.00	0.389	pCi/L	07/11/16 20:57	08/01/16 12:40	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110	07/11/16 20:57	08/01/16 12:40	1
Y Carrier	91.2		40 - 110	07/11/16 20:57	08/01/16 12:40	1

Lab Sample ID: LCS 160-260024/2-A
Matrix: Water
Analysis Batch: 262857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260024

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	15.88		1.71	1.00	0.376	pCi/L	107	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	79.8		40 - 110
Y Carrier	92.7		40 - 110

Lab Sample ID: 160-18059-A-1-C MS
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 260024

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	-0.200	U G	29.6	30.93		3.54	1.00	1.25	pCi/L	105	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	57.8		40 - 110
Y Carrier	90.5		40 - 110

Lab Sample ID: 160-18059-A-1-D MSD
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 260024

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	-0.200	U G	29.6	30.00		3.29	1.00	0.944	pCi/L	101	45 - 150	0.14	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	75.2		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: Shane Bragg	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Gypsum Storage Area	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, SM4600_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-200	7-5-16	1235	G	Water	X		X	X	X	X	5	
MW-201	7-6-16	0719		Water	X		X	X	X	X	5	
MW-202	7-6-16	0820		Water	X		X	X	X	X	5	
MW-203	7-5-16	1600		Water	X		X	X	X	X	5	
MW-204		1005		Water	X		X	X	X	X	5	
~~MW-205~~		1110		Water	X		X	X	X	X	5	400-124027 COC
MW-206		1330	G	Water	X		X	X	X	X	5	
EB-01	7-5-16	1430	G	W	X		X	X	X	X	5	
FB-01	7-5-16	1440	G	W	X		X	X	X	X	5	
Dup-02	7-6-16	0619	G	W	X		X	X	X	X	5	
MW-205	7-6-16	1010	G	W	X		X	X	X	X	5	

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: 7-6-17 1340	Company RPH ENV.	Received by:	Date/Time: 7/6/16 1340	Company TX
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: 4.7C 1.0°C IR6

SS

8/10/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-124027-1
SDG Number: Gypsum Storage Area

Login Number: 124027
List Number: 1
Creator: Siddoway, Benjamin

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	1.0°C, 4.7°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-124027-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-124075-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
8/10/2016 5:12:38 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 23
Chronicle 24
QC Association 28
QC Sample Results 32
Chain of Custody 40
Receipt Checklists 41
Certification Summary 42

Job ID: 400-124075-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-124075-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-260007: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-124075-1), MW-303 (400-124075-2), MW-304 (400-124075-3), MW-305 (400-124075-4), MW-308 (400-124075-5), DUP-03 (400-124075-6), EB-02 (400-124075-7) and FB-02 (400-124075-8). A laboratory control sample/ laboratory sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-259997: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-124075-1), MW-303 (400-124075-2), MW-304 (400-124075-3), MW-305 (400-124075-4), MW-308 (400-124075-5), DUP-03 (400-124075-6), EB-02 (400-124075-7) and FB-02 (400-124075-8). A laboratory control sample/ laboratory sample duplicate (LCS/LCSD) were prepared instead.

Metals

Method(s) 7470A: The method blank for prep batch 313259 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

Method(s) 6020: The initial calibration verification (ICV) result for batch 313813 was above the upper control limit for Thallium. Sample results were non-detects, and have been reported as qualified data.

Method(s) 6020: Due to the high concentration of Boron and Molybdenum, the post-digestion spike (PDS), matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 313433 and analytical batch 313813 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-124075-2), MW-304 (400-124075-3), MW-308 (400-124075-5) and DUP-03 (400-124075-6). Elevated reporting limits (RLs) are provided.

Detection Summary

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-124075-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.62		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	8.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.96				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-124075-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00050	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	2.6		0.25	0.11	mg/L	25		6020	Total Recoverable
Cadmium	0.00036	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	54		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.024		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	1.9		0.075	0.0043	mg/L	25		6020	Total Recoverable
Selenium	0.0061		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00016	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	280		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	28		2.0	0.60	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	150		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	7.07				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-124075-3

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	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.9		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium	120		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.15		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0014		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0044	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0018	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0056		0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-124075-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00022	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0012		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	870		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	130		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	510		500	140	mg/L	100		SM 4500 SO4 E	Total/NA
Field pH	4.93				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-124075-4

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
Boron	0.034	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.71		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00044	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	7.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.19				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-124075-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	4.9		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium	72		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0066		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00032	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.00010	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	51		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	270		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.42				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-124075-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	4.8		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium	72		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0067		0.0013	0.00024	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-03 (Continued) — Lab Sample ID: 400-124075-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00031	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.000077	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	51		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	270		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.42				SU	1		Field Sampling	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 400-124075-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000092	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-124075-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000095	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124075-1	MW-300	Water	07/07/16 07:26	07/07/16 08:34
400-124075-2	MW-303	Water	07/06/16 11:18	07/07/16 08:34
400-124075-3	MW-304	Water	07/06/16 09:08	07/07/16 08:34
400-124075-4	MW-305	Water	07/07/16 06:26	07/07/16 08:34
400-124075-5	MW-308	Water	07/06/16 10:04	07/07/16 08:34
400-124075-6	DUP-03	Water	07/06/16 09:04	07/07/16 08:34
400-124075-7	EB-02	Water	07/06/16 11:30	07/07/16 08:34
400-124075-8	FB-02	Water	07/06/16 11:40	07/07/16 08:34

Client Sample ID: MW-300

Date Collected: 07/07/16 07:26
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-1

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		07/11/16 08:30	07/11/16 18:05	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 18:05	5
Barium	**0.012**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 18:05	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:05	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 18:05	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:05	5
Calcium	**0.62**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 18:05	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 18:05	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 18:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 18:05	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 18:05	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 18:05	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 18:05	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 18:05	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		07/07/16 13:43	07/11/16 10:43	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			07/13/16 17:48	1
Chloride	**8.3**		2.0	0.60	mg/L			07/07/16 16:49	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/21/16 17:24	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/08/16 15:44	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.966**		0.254	0.269	1.00	0.247	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**5.30**		0.628	0.795	1.00	0.561	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*87.1*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	**6.27**		0.678	0.839	5.00	0.561	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 07/07/16 07:26
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-1
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.96				SU			07/07/16 07:26	1

Client Sample ID: MW-303

Date Collected: 07/06/16 11:18
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-2

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		07/11/16 08:30	07/11/16 18:10	5
Arsenic	**0.00050**	**I**	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 18:10	5
Barium	**0.025**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 18:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:10	5
Boron	**2.6**		0.25	0.11	mg/L		07/11/16 08:30	07/12/16 11:50	25
Cadmium	**0.00036**	**I**	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:10	5
Calcium	**54**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 18:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 18:10	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 18:10	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 18:10	5
Lithium	**0.024**		0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 18:10	5
Molybdenum	**1.9**		0.075	0.0043	mg/L		07/11/16 08:30	07/12/16 11:50	25
Selenium	**0.0061**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 18:10	5
Thallium	**0.00016**	**I**	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 18:10	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		07/07/16 13:43	07/11/16 11:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**280**		5.0	3.4	mg/L			07/09/16 15:55	1
Chloride	**28**		2.0	0.60	mg/L			07/07/16 16:49	1
Fluoride	**0.13**		0.10	0.032	mg/L			07/21/16 17:26	1
Sulfate	**150**		50	14	mg/L			07/08/16 16:22	10

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**6.09**		0.543	0.772	1.00	0.204	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**6.83**		0.674	0.922	1.00	0.498	pCi/L	07/11/16 15:16	08/01/16 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*1*
Y Carrier	*86.0*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*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**		0.865	1.20	5.00	0.498	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-303
Date Collected: 07/06/16 11:18
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-2
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.07				SU			07/06/16 11:18	1

Client Sample ID: MW-304

Date Collected: 07/06/16 09:08
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-3

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		07/11/16 08:30	07/11/16 18:32	5
Arsenic	**0.014**		0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 18:32	5
Barium	**0.036**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 18:32	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:32	5
Boron	**1.9**		0.25	0.11	mg/L		07/11/16 08:30	07/12/16 11:54	25
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:32	5
Calcium	**120**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 18:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 18:32	5
Cobalt	**0.15**		0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 18:32	5
Lead	**0.0014**		0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 18:32	5
Lithium	**0.0044**	**I**	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 18:32	5
Molybdenum	**0.0018**	**I**	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 18:32	5
Selenium	**0.0056**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 18:32	5
Thallium	**0.00022**	**I**	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 18:32	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.000070	mg/L		07/07/16 13:43	07/11/16 11:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**870**		5.0	3.4	mg/L			07/09/16 15:55	1
Chloride	**130**		10	3.0	mg/L			07/07/16 17:15	5
Fluoride	**0.15**		0.10	0.032	mg/L			07/29/16 09:55	1
Sulfate	**510**		500	140	mg/L			07/08/16 16:22	100

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.636**		0.183	0.192	1.00	0.159	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.20**		0.392	0.441	1.00	0.395	pCi/L	07/11/16 15:16	08/01/16 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*1*
Y Carrier	*87.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*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	**2.84**		0.433	0.481	5.00	0.395	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-304
Date Collected: 07/06/16 09:08
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.93				SU			07/06/16 09:08	1

Client Sample ID: MW-305

Date Collected: 07/07/16 06:26
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-4

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		07/11/16 08:30	07/11/16 18:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 18:37	5
Barium	**0.018**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 18:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:37	5
Boron	**0.034**	**I**	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 18:37	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:37	5
Calcium	**0.71**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 18:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 18:37	5
Cobalt	**0.00044**	**I**	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 18:37	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 18:37	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 18:37	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 18:37	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 18:37	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 18:37	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		07/07/16 13:43	07/11/16 11:52	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			07/13/16 17:48	1
Chloride	**7.1**		2.0	0.60	mg/L			07/07/16 16:49	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:04	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/08/16 15:44	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.739**		0.195	0.206	1.00	0.157	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.501	U	0.333	0.336	1.00	0.520	pCi/L	07/11/16 15:16	08/01/16 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*1*
Y Carrier	*82.2*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*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**		0.386	0.394	5.00	0.520	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-305
Date Collected: 07/07/16 06:26
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-4
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.19				SU			07/07/16 06:26	1

Client Sample ID: MW-308

Date Collected: 07/06/16 10:04
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-5

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		07/11/16 08:30	07/11/16 18:41	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 18:41	5
Barium	**0.029**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 18:41	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:41	5
Boron	**4.9**		1.0	0.42	mg/L		07/11/16 08:30	07/12/16 11:59	100
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:41	5
Calcium	**72**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 18:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 18:41	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 18:41	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 18:41	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 18:41	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 18:41	5
Selenium	**0.0066**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 18:41	5
Thallium	**0.00032**	**I**	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 18:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00010**	**I V**	0.00020	0.000070	mg/L		07/07/16 13:43	07/11/16 11:54	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**500**		5.0	3.4	mg/L			07/09/16 15:55	1
Chloride	**51**		4.0	1.2	mg/L			07/07/16 17:15	2
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			07/29/16 10:06	1
Sulfate	**270**		100	28	mg/L			07/08/16 16:40	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.967**		0.250	0.265	1.00	0.267	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.11**		0.407	0.450	1.00	0.444	pCi/L	07/11/16 15:16	08/01/16 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*1*
Y Carrier	*84.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:11*	*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	**3.08**		0.477	0.522	5.00	0.444	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 07/06/16 10:04
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-5
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.42				SU			07/06/16 10:04	1

Client Sample ID: DUP-03

Date Collected: 07/06/16 09:04
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-6

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		07/11/16 08:30	07/11/16 18:46	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 18:46	5
Barium	**0.028**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 18:46	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:46	5
Boron	**4.8**		1.0	0.42	mg/L		07/11/16 08:30	07/12/16 12:03	100
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 18:46	5
Calcium	**72**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 18:46	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 18:46	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 18:46	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 18:46	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 18:46	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 18:46	5
Selenium	**0.0067**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 18:46	5
Thallium	**0.00031**	**I**	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 18:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000077**	**I V**	0.00020	0.000070	mg/L		07/07/16 13:43	07/11/16 11:55	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**500**		5.0	3.4	mg/L			07/09/16 15:55	1
Chloride	**51**		4.0	1.2	mg/L			07/07/16 17:15	2
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			07/29/16 10:08	1
Sulfate	**270**		100	28	mg/L			07/08/16 16:40	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.13**		0.237	0.258	1.00	0.178	pCi/L	07/11/16 14:27	08/02/16 07:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.17**		0.402	0.449	1.00	0.436	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*84.5*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	**3.30**		0.467	0.518	5.00	0.436	pCi/L		08/03/16 04:51	1

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: DUP-03
Date Collected: 07/06/16 09:04
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-6
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.42				SU			07/06/16 09:04	1

Client Sample ID: EB-02
Date Collected: 07/06/16 11:30
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-7
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		07/11/16 08:30	07/11/16 17:47	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 17:47	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 17:47	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:47	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 17:47	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:47	5
Calcium	0.13	U	0.25	0.13	mg/L		07/11/16 08:30	07/11/16 17:47	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 17:47	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 17:47	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 17:47	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 17:47	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 17:47	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 17:47	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 17:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000092**	**I V**	0.00020	0.000070	mg/L		07/07/16 13:43	07/11/16 11:56	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			07/09/16 15:55	1
Chloride	0.60	U	2.0	0.60	mg/L			07/07/16 16:49	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:10	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/08/16 15:45	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0158	U	0.123	0.123	1.00	0.231	pCi/L	07/11/16 14:27	08/02/16 07:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.139	U	0.238	0.238	1.00	0.454	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*81.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	-0.123	U	0.268	0.268	5.00	0.454	pCi/L		08/03/16 04:51	1

Client Sample ID: FB-02

Date Collected: 07/06/16 11:40
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-8

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		07/11/16 08:30	07/11/16 17:52	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 17:52	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 17:52	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:52	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 17:52	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:52	5
Calcium	0.13	U	0.25	0.13	mg/L		07/11/16 08:30	07/11/16 17:52	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 17:52	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 17:52	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 17:52	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 17:52	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 17:52	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 17:52	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 17:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000095**	**I V**	0.00020	0.000070	mg/L		07/07/16 13:43	07/11/16 11:58	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			07/09/16 15:55	1
Chloride	0.60	U	2.0	0.60	mg/L			07/07/16 16:49	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:14	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/08/16 15:45	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00681	U	0.0927	0.0927	1.00	0.184	pCi/L	07/11/16 14:27	08/02/16 07:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0462	U	0.214	0.214	1.00	0.379	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*84.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	0.0530	U	0.233	0.233	5.00	0.379	pCi/L		08/03/16 04:51	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.
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
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 07/07/16 07:26
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 18:05	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 10:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:49	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:24	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313557	07/08/16 15:44	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317112	07/07/16 07:26	BWS	TAL PEN

Client Sample ID: MW-303

Date Collected: 07/06/16 11:18
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 18:10	RJB	TAL PEN
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	314053	07/12/16 11:50	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313561	07/09/16 15:55	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:49	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	315304	07/21/16 17:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	313557	07/08/16 16:22	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317112	07/06/16 11:18	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: MW-304

Date Collected: 07/06/16 09:08
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 18:32	RJB	TAL PEN
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	314053	07/12/16 11:54	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313561	07/09/16 15:55	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	313323	07/07/16 17:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 09:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		100	313557	07/08/16 16:22	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317112	07/06/16 09:08	BWS	TAL PEN

Client Sample ID: MW-305

Date Collected: 07/07/16 06:26
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 18:37	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:49	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313557	07/08/16 15:44	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317112	07/07/16 06:26	BWS	TAL PEN

Client Sample ID: MW-308

Lab Sample ID: 400-124075-5

Date Collected: 07/06/16 10:04

Matrix: Water

Date Received: 07/07/16 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 18:41	RJB	TAL PEN
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		100	314053	07/12/16 11:59	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313561	07/09/16 15:55	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	313323	07/07/16 17:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	313557	07/08/16 16:40	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317112	07/06/16 10:04	BWS	TAL PEN

Client Sample ID: DUP-03

Lab Sample ID: 400-124075-6

Date Collected: 07/06/16 09:04

Matrix: Water

Date Received: 07/07/16 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 18:46	RJB	TAL PEN
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		100	314053	07/12/16 12:03	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313561	07/09/16 15:55	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	313323	07/07/16 17:15	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	313557	07/08/16 16:40	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317112	07/06/16 09:04	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Client Sample ID: EB-02

Date Collected: 07/06/16 11:30
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 17:47	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313561	07/09/16 15:55	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:49	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:10	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313557	07/08/16 15:45	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL

Client Sample ID: FB-02

Date Collected: 07/06/16 11:40
Date Received: 07/07/16 08:34

Lab Sample ID: 400-124075-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 17:52	RJB	TAL PEN
Total/NA	Prep	7470A			313259	07/07/16 13:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	313753	07/11/16 11:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	313561	07/09/16 15:55	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	313323	07/07/16 16:49	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:14	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	313557	07/08/16 15:45	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL

Laboratory References:

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

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

Metals

Prep Batch: 313259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	7470A	
400-124075-2	MW-303	Total/NA	Water	7470A	
400-124075-3	MW-304	Total/NA	Water	7470A	
400-124075-4	MW-305	Total/NA	Water	7470A	
400-124075-5	MW-308	Total/NA	Water	7470A	
400-124075-6	DUP-03	Total/NA	Water	7470A	
400-124075-7	EB-02	Total/NA	Water	7470A	
400-124075-8	FB-02	Total/NA	Water	7470A	
MB 400-313259/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-313259/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-124075-1 MS	MW-300	Total/NA	Water	7470A	
400-124075-1 MSD	MW-300	Total/NA	Water	7470A	

Prep Batch: 313433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total Recoverable	Water	3005A	
400-124075-2	MW-303	Total Recoverable	Water	3005A	
400-124075-3	MW-304	Total Recoverable	Water	3005A	
400-124075-4	MW-305	Total Recoverable	Water	3005A	
400-124075-5	MW-308	Total Recoverable	Water	3005A	
400-124075-6	DUP-03	Total Recoverable	Water	3005A	
400-124075-7	EB-02	Total Recoverable	Water	3005A	
400-124075-8	FB-02	Total Recoverable	Water	3005A	
MB 400-313433/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-313433/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124075-2 MS	MW-303	Total Recoverable	Water	3005A	
400-124075-2 MSD	MW-303	Total Recoverable	Water	3005A	

Analysis Batch: 313753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	7470A	313259
400-124075-2	MW-303	Total/NA	Water	7470A	313259
400-124075-3	MW-304	Total/NA	Water	7470A	313259
400-124075-4	MW-305	Total/NA	Water	7470A	313259
400-124075-5	MW-308	Total/NA	Water	7470A	313259
400-124075-6	DUP-03	Total/NA	Water	7470A	313259
400-124075-7	EB-02	Total/NA	Water	7470A	313259
400-124075-8	FB-02	Total/NA	Water	7470A	313259
MB 400-313259/14-A	Method Blank	Total/NA	Water	7470A	313259
LCS 400-313259/15-A	Lab Control Sample	Total/NA	Water	7470A	313259
400-124075-1 MS	MW-300	Total/NA	Water	7470A	313259
400-124075-1 MSD	MW-300	Total/NA	Water	7470A	313259

Analysis Batch: 313813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total Recoverable	Water	6020	313433
400-124075-2	MW-303	Total Recoverable	Water	6020	313433
400-124075-3	MW-304	Total Recoverable	Water	6020	313433
400-124075-4	MW-305	Total Recoverable	Water	6020	313433
400-124075-5	MW-308	Total Recoverable	Water	6020	313433
400-124075-6	DUP-03	Total Recoverable	Water	6020	313433

Metals (Continued)

Analysis Batch: 313813 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-7	EB-02	Total Recoverable	Water	6020	313433
400-124075-8	FB-02	Total Recoverable	Water	6020	313433
MB 400-313433/1-A ^5	Method Blank	Total Recoverable	Water	6020	313433
LCS 400-313433/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	313433
400-124075-2 MS	MW-303	Total Recoverable	Water	6020	313433
400-124075-2 MSD	MW-303	Total Recoverable	Water	6020	313433

Analysis Batch: 314053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-2	MW-303	Total Recoverable	Water	6020	313433
400-124075-3	MW-304	Total Recoverable	Water	6020	313433
400-124075-5	MW-308	Total Recoverable	Water	6020	313433
400-124075-6	DUP-03	Total Recoverable	Water	6020	313433

General Chemistry

Analysis Batch: 313323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-124075-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-124075-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-124075-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-124075-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-124075-6	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-124075-7	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-124075-8	FB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-313323/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-313323/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-124075-4 MS	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-124075-4 MSD	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-124062-A-1 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 313557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-124075-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-124075-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-124075-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-124075-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-124075-6	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-124075-7	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-124075-8	FB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-313557/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-313557/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-124075-1 MS	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-124075-1 MSD	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-124130-E-8 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 313561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-2	MW-303	Total/NA	Water	SM 2540C	
400-124075-3	MW-304	Total/NA	Water	SM 2540C	
400-124075-5	MW-308	Total/NA	Water	SM 2540C	
400-124075-6	DUP-03	Total/NA	Water	SM 2540C	
400-124075-7	EB-02	Total/NA	Water	SM 2540C	
400-124075-8	FB-02	Total/NA	Water	SM 2540C	
MB 400-313561/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-313561/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124075-2 DU	MW-303	Total/NA	Water	SM 2540C	

Analysis Batch: 314186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	SM 2540C	
400-124075-4	MW-305	Total/NA	Water	SM 2540C	
MB 400-314186/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-314186/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124075-1 DU	MW-300	Total/NA	Water	SM 2540C	

Analysis Batch: 315304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	SM 4500 F C	
400-124075-2	MW-303	Total/NA	Water	SM 4500 F C	
MB 400-315304/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-315304/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-123962-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-123962-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-124027-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 316341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-3	MW-304	Total/NA	Water	SM 4500 F C	
400-124075-4	MW-305	Total/NA	Water	SM 4500 F C	
400-124075-5	MW-308	Total/NA	Water	SM 4500 F C	
400-124075-6	DUP-03	Total/NA	Water	SM 4500 F C	
400-124075-7	EB-02	Total/NA	Water	SM 4500 F C	
400-124075-8	FB-02	Total/NA	Water	SM 4500 F C	
MB 400-316341/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-316341/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-124075-3 MS	MW-304	Total/NA	Water	SM 4500 F C	
400-124075-3 MSD	MW-304	Total/NA	Water	SM 4500 F C	
400-124148-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 259997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	PrecSep-21	
400-124075-2	MW-303	Total/NA	Water	PrecSep-21	
400-124075-3	MW-304	Total/NA	Water	PrecSep-21	
400-124075-4	MW-305	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 259997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-5	MW-308	Total/NA	Water	PrecSep-21	
400-124075-6	DUP-03	Total/NA	Water	PrecSep-21	
400-124075-7	EB-02	Total/NA	Water	PrecSep-21	
400-124075-8	FB-02	Total/NA	Water	PrecSep-21	
MB 160-259997/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259997/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-259997/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 260007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	PrecSep_0	
400-124075-2	MW-303	Total/NA	Water	PrecSep_0	
400-124075-3	MW-304	Total/NA	Water	PrecSep_0	
400-124075-4	MW-305	Total/NA	Water	PrecSep_0	
400-124075-5	MW-308	Total/NA	Water	PrecSep_0	
400-124075-6	DUP-03	Total/NA	Water	PrecSep_0	
400-124075-7	EB-02	Total/NA	Water	PrecSep_0	
400-124075-8	FB-02	Total/NA	Water	PrecSep_0	
MB 160-260007/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-260007/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-260007/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 317112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124075-1	MW-300	Total/NA	Water	Field Sampling	
400-124075-2	MW-303	Total/NA	Water	Field Sampling	
400-124075-3	MW-304	Total/NA	Water	Field Sampling	
400-124075-4	MW-305	Total/NA	Water	Field Sampling	
400-124075-5	MW-308	Total/NA	Water	Field Sampling	
400-124075-6	DUP-03	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-313433/1-A ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		07/11/16 08:30	07/11/16 17:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 17:29	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 17:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:29	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 17:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:29	5
Calcium	0.13	U	0.25	0.13	mg/L		07/11/16 08:30	07/11/16 17:29	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 17:29	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 17:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 17:29	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 17:29	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 17:29	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 17:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 17:29	5

Lab Sample ID: LCS 400-313433/2-A ^1
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0545		mg/L		109	80 - 120
Arsenic	0.0500	0.0541		mg/L		108	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0487		mg/L		97	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0492		mg/L		98	80 - 120
Calcium	5.00	4.89		mg/L		98	80 - 120
Chromium	0.0500	0.0502		mg/L		100	80 - 120
Cobalt	0.0500	0.0483		mg/L		97	80 - 120
Lead	0.0500	0.0495		mg/L		99	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.0500	0.0504		mg/L		101	80 - 120
Selenium	0.0500	0.0522		mg/L		104	80 - 120
Thallium	0.0100	0.0115		mg/L		115	80 - 120

Lab Sample ID: 400-124075-2 MS
Matrix: Water
Analysis Batch: 313813

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0598		mg/L		120	75 - 125
Arsenic	0.00050	I	0.0500	0.0577		mg/L		114	75 - 125
Barium	0.025		0.0500	0.0765		mg/L		104	75 - 125
Beryllium	0.00034	U	0.0500	0.0507		mg/L		101	75 - 125
Boron	2.9	L	0.100	3.07	L J3	mg/L		151	75 - 125
Cadmium	0.00036	I	0.0500	0.0505		mg/L		100	75 - 125
Calcium	54		5.00	58.9		mg/L		107	75 - 125
Chromium	0.0011	U	0.0500	0.0520		mg/L		104	75 - 125

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

Lab Sample ID: 400-124075-2 MS
Matrix: Water
Analysis Batch: 313813

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0512		mg/L		102	75 - 125
Lead	0.00035	U	0.0500	0.0512		mg/L		102	75 - 125
Lithium	0.024		0.0500	0.0754		mg/L		102	75 - 125
Molybdenum	1.9	L	0.0500	1.96	L	mg/L		111	75 - 125
Selenium	0.0061		0.0500	0.0597		mg/L		107	75 - 125
Thallium	0.00016	I	0.0100	0.0120		mg/L		118	75 - 125

Lab Sample ID: 400-124075-2 MSD
Matrix: Water
Analysis Batch: 313813

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 313433

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	0.0570		mg/L		114	75 - 125	5	20
Arsenic	0.00050	I	0.0500	0.0564		mg/L		112	75 - 125	2	20
Barium	0.025		0.0500	0.0749		mg/L		101	75 - 125	2	20
Beryllium	0.00034	U	0.0500	0.0507		mg/L		101	75 - 125	0	20
Boron	2.9	L	0.100	3.06	L J3	mg/L		136	75 - 125	1	20
Cadmium	0.00036	I	0.0500	0.0500		mg/L		99	75 - 125	1	20
Calcium	54		5.00	58.1		mg/L		90	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0506		mg/L		101	75 - 125	3	20
Cobalt	0.00040	U	0.0500	0.0501		mg/L		100	75 - 125	2	20
Lead	0.00035	U	0.0500	0.0498		mg/L		100	75 - 125	3	20
Lithium	0.024		0.0500	0.0749		mg/L		101	75 - 125	1	20
Molybdenum	1.9	L	0.0500	1.88	J3 L	mg/L		-31	75 - 125	4	20
Selenium	0.0061		0.0500	0.0580		mg/L		104	75 - 125	3	20
Thallium	0.00016	I	0.0100	0.0117		mg/L		116	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-313259/14-A
Matrix: Water
Analysis Batch: 313753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313259

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000803	I	0.00020	0.000070	mg/L		07/07/16 13:42	07/11/16 10:41	1

Lab Sample ID: LCS 400-313259/15-A
Matrix: Water
Analysis Batch: 313753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313259

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-124075-1 MS
Matrix: Water
Analysis Batch: 313753

Client Sample ID: MW-300
Prep Type: Total/NA
Prep Batch: 313259

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00189		mg/L		94	80 - 120

Lab Sample ID: 400-124075-1 MSD — **Client Sample ID: MW-300**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313753 — **Prep Batch: 313259**

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	0.00183		mg/L		91	80 - 120	3	20

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

Lab Sample ID: MB 400-313561/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313561

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			07/09/16 15:55	1

Lab Sample ID: LCS 400-313561/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	274		mg/L		94	78 - 122

Lab Sample ID: 400-124075-2 DU — **Client Sample ID: MW-303**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313561

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	280		290		mg/L		4	5

Lab Sample ID: MB 400-314186/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314186

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			07/13/16 17:48	1

Lab Sample ID: LCS 400-314186/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314186

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	286		mg/L		98	78 - 122

Lab Sample ID: 400-124075-1 DU — **Client Sample ID: MW-300**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 314186

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3.4	U	6.00		mg/L		NC	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-313323/6
Matrix: Water
Analysis Batch: 313323

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/07/16 14:34	1

Lab Sample ID: LCS 400-313323/7
Matrix: Water
Analysis Batch: 313323

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	31.1		mg/L		104	90 - 110

Lab Sample ID: 400-124075-4 MS
Matrix: Water
Analysis Batch: 313323

Client Sample ID: MW-305
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.1		10.0	18.9		mg/L		118	73 - 120

Lab Sample ID: 400-124075-4 MSD
Matrix: Water
Analysis Batch: 313323

Client Sample ID: MW-305
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.1		10.0	18.8		mg/L		117	73 - 120	1	8

Lab Sample ID: 400-124062-A-1 DU
Matrix: Water
Analysis Batch: 313323

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	350		356		mg/L		1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-315304/3
Matrix: Water
Analysis Batch: 315304

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			07/21/16 16:23	1

Lab Sample ID: LCS 400-315304/4
Matrix: Water
Analysis Batch: 315304

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	4.11		mg/L		103	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-123962-A-4 MS
Matrix: Water
Analysis Batch: 315304

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	1.05		mg/L		105	75 - 125

Lab Sample ID: 400-123962-A-4 MSD
Matrix: Water
Analysis Batch: 315304

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	1.03		mg/L		103	75 - 125	2	4

Lab Sample ID: 400-124027-A-5 DU
Matrix: Water
Analysis Batch: 315304

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.24		0.240		mg/L		0	4

Lab Sample ID: MB 400-316341/3
Matrix: Water
Analysis Batch: 316341

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			07/29/16 09:45	1

Lab Sample ID: LCS 400-316341/4
Matrix: Water
Analysis Batch: 316341

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	4.36		mg/L		109	90 - 110

Lab Sample ID: 400-124075-3 MS
Matrix: Water
Analysis Batch: 316341

Client Sample ID: MW-304
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.15		1.00	1.16		mg/L		101	75 - 125

Lab Sample ID: 400-124075-3 MSD
Matrix: Water
Analysis Batch: 316341

Client Sample ID: MW-304
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.15		1.00	1.14		mg/L		99	75 - 125	2	4

Lab Sample ID: 400-124148-A-3 DU
Matrix: Water
Analysis Batch: 316341

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 400-313557/6
Matrix: Water
Analysis Batch: 313557

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			07/08/16 15:15	1

Lab Sample ID: LCS 400-313557/7
Matrix: Water
Analysis Batch: 313557

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	14.2		mg/L		95	90 - 110		

Lab Sample ID: 400-124075-1 MS
Matrix: Water
Analysis Batch: 313557

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	9.83		mg/L		98	77 - 128		

Lab Sample ID: 400-124075-1 MSD
Matrix: Water
Analysis Batch: 313557

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	9.75		mg/L		97	77 - 128	1	5

Lab Sample ID: 400-124130-E-8 DU
Matrix: Water
Analysis Batch: 313557

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	18			18.2		mg/L				0.8	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-259997/1-A
Matrix: Water
Analysis Batch: 263018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259997

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008964	U	0.123	0.123	1.00	0.239	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

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

Lab Sample ID: LCS 160-259997/2-A
Matrix: Water
Analysis Batch: 263018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259997

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	14.91		1.58	1.00	0.194	pCi/L	134	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*

Lab Sample ID: LCSD 160-259997/3-A
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259997

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	11.96		1.31	1.00	0.173	pCi/L	107	68 - 137	1.02	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-260007/1-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260007

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.03445	U	0.277	0.277	1.00	0.487	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*87.1*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*

Lab Sample ID: LCS 160-260007/2-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260007

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	17.25		1.86	1.00	0.483	pCi/L	117	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-260007/3-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 260007

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.8	17.73		1.91	1.00	0.475	pCi/L	120	56 - 140	0.13	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*
Y Carrier	*87.1*		*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 Surles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Landfill 2	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 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Ti, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-300	7/7/16	0726	G	Water			X	X	X	X		
MW-303	7/6/16	1118		Water								
MW-304	7/6/16	0908		Water								
MW-305	7/7/16	0626		Water								
MW-308	7/6/16	1004		Water								
DUP-03	7/6/16	0904		water								
EQ Blank-02	7/6/16	1130		water								
Field Blank-03	7/6/16	1140	G	water			X	X	X	X		

400-124075 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
1	[signature]	7/7/16 0834	RDH	[signature]	7/7/16 0834	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 4.8°C 2.7°C IR6

8/10/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-124075-1
SDG Number: Landfill 2

Login Number: 124075
List Number: 1
Creator: Benforado, Jessica L

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	4.8°C, 2.7°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-124075-1
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-124148-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
8/14/2016 9:14:00 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 5
Method Summary 9
Sample Summary 10
Client Sample Results 11
Definitions 34
Chronicle 35
QC Association 42
QC Sample Results 48
Chain of Custody 61
Receipt Checklists 63
Certification Summary 64

Job ID: 400-124148-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-124148-1

Receipt
Samples MW-101 and MW-106 from the first coc were canceled and resampled on the second coc.

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-260007: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-102 (400-124148-2), MW-103 (400-124148-3), MW-104 (400-124148-4), MW-105 (400-124148-5), MW-109 (400-124148-7), MW-110 (400-124148-8), FB-03 (400-124148-9), EQB-03 (400-124148-10) and DUP-04 (400-124148-11). A laboratory control sample/ laboratory sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-260215: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-101 (400-124148-12), MW-106 (400-124148-13), EB-04 (400-124148-14) and DUP-05 (400-124148-15). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch duplicity.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-259997: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-102 (400-124148-2), MW-103 (400-124148-3), MW-104 (400-124148-4), MW-105 (400-124148-5), MW-109 (400-124148-7), MW-110 (400-124148-8), FB-03 (400-124148-9), EQB-03 (400-124148-10) and DUP-04 (400-124148-11). A laboratory control sample/ laboratory sample duplicate (LCS/LCSD) were prepared instead.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-260213: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-101 (400-124148-12), MW-106 (400-124148-13), EB-04 (400-124148-14) and DUP-05 (400-124148-15). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch duplicity.

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-124148-4) and MW-110 (400-124148-8). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The initial calibration verification (ICV) result for batch 313813 was above the upper control limit for Thallium. Sample results were non-detects, and have been reported as qualified data.

Method(s) 6020: The initial calibration verification (ICV) result for batch 314611 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data:MW-101 (400-124148-12), MW-106 (400-124148-13), EB-04 (400-124148-14) and DUP-05 (400-124148-15) .

Method(s) 6020: The laboratory control sample (LCS) for preparation batch 313433 and analytical batch 314611 recovered outside control limits for the following analytes: Antimony. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 313433 and analytical batch 313813 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) 7470A: The method blank for prep batch 313660 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 313660 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 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 314932 were outside control

Job ID: 400-124148-1 (Continued)

Laboratory: TestAmerica Pensacola (Continued)

limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-102 — Lab Sample ID: 400-124148-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00026	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.85				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-124148-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.33		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0025		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000085	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	31		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.45				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-124148-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0082		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0010	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	38		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0014	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.012		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0018		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.040		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0043		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00028	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	7.0		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.00066	V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	640		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	75		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-124148-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.29		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	330		250	70	mg/L	50		SM 4500 SO4 E	Total/NA
Field pH	3.99				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-124148-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0037		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.0		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	55		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0047	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	270		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	34		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	33		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.99				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-124148-7

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
Boron	0.10		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0043		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0060		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Mercury	0.000095	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	14		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.86				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-124148-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.044		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	20		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0041		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0092		0.0050	0.0032	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-110 (Continued) — Lab Sample ID: 400-124148-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.0031		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00025	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.0		0.25	0.11	mg/L	25		6020	Total Recoverable
Mercury	0.0053		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	470		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	83		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	200		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.55				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-03 — Lab Sample ID: 400-124148-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00029	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000097	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA

Client Sample ID: EQB-03 — Lab Sample ID: 400-124148-10

No Detections.

Client Sample ID: DUP-04 — Lab Sample ID: 400-124148-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.053		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.36		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0025		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	32		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.45				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-101 — Lab Sample ID: 400-124148-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0093		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.40		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000077	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.96				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-124148-13

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-106 (Continued) — Lab Sample ID: 400-124148-13

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	0.82		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00057	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000085	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.49				SU	1		Field Sampling	Total/NA

Client Sample ID: EB-04 — Lab Sample ID: 400-124148-14

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000083	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-05 — Lab Sample ID: 400-124148-15

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0091		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.40		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00041	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000083	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4.0	I	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.96				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 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
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
Field Sampling	Field Sampling	EPA	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.

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124148-2	MW-102	Water	07/07/16 16:05	07/07/16 16:50
400-124148-3	MW-103	Water	07/07/16 09:35	07/07/16 16:50
400-124148-4	MW-104	Water	07/07/16 13:50	07/07/16 16:50
400-124148-5	MW-105	Water	07/07/16 11:20	07/07/16 16:50
400-124148-7	MW-109	Water	07/07/16 11:48	07/07/16 16:50
400-124148-8	MW-110	Water	07/07/16 13:37	07/07/16 16:50
400-124148-9	FB-03	Water	07/07/16 12:45	07/07/16 16:50
400-124148-10	EQB-03	Water	07/07/16 12:00	07/07/16 16:50
400-124148-11	DUP-04	Water	07/07/16 08:33	07/07/16 16:50
400-124148-12	MW-101	Water	07/08/16 13:38	07/08/16 16:45
400-124148-13	MW-106	Water	07/08/16 15:34	07/08/16 16:45
400-124148-14	EB-04	Water	07/08/16 14:11	07/08/16 16:45
400-124148-15	DUP-05	Water	07/08/16 14:34	07/08/16 16:45

Client Sample ID: MW-102
Date Collected: 07/07/16 16:05
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-2
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		07/11/16 08:30	07/11/16 19:04	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:04	5
Barium	**0.012**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:04	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:04	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 19:04	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:04	5
Calcium	**1.1**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:04	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:04	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:04	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:04	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:04	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:04	5
Selenium	**0.00026**	**I**	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:04	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:04	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		07/11/16 08:47	07/13/16 13:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**5.0**		2.0	0.60	mg/L			07/19/16 15:28	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:20	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/19/16 13:49	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.500**		0.174	0.180	1.00	0.187	pCi/L	07/11/16 14:27	08/02/16 07:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.08**		0.327	0.342	1.00	0.424	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*86.7*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	**1.58**		0.370	0.386	5.00	0.424	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-102
Date Collected: 07/07/16 16:05
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-2
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.85				SU			07/07/16 16:05	1

Client Sample ID: MW-103
Date Collected: 07/07/16 09:35
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-3
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		07/11/16 08:30	07/11/16 19:08	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:08	5
Barium	**0.055**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:08	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:08	5
Boron	**0.33**		0.050	0.021	mg/L		07/11/16 08:30	07/11/16 19:08	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:08	5
Calcium	**3.9**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:08	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:08	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:08	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:08	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:08	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:08	5
Selenium	**0.0025**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:08	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:08	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000085**	**I V**	0.00020	0.000070	mg/L		07/11/16 08:47	07/13/16 13:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**54**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**7.3**		2.0	0.60	mg/L			07/19/16 15:28	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:42	1
Sulfate	**31**		25	7.0	mg/L			07/19/16 14:30	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.36**		0.343	0.403	1.00	0.201	pCi/L	07/11/16 14:27	08/02/16 07:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.65**		0.540	0.689	1.00	0.401	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*85.6*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	**7.01**		0.639	0.798	5.00	0.401	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-103
Date Collected: 07/07/16 09:35
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.45				SU			07/07/16 09:35	1

Client Sample ID: MW-104

Date Collected: 07/07/16 13:50
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-4

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		07/11/16 08:30	07/11/16 19:13	5
Arsenic	**0.0082**		0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:13	5
Barium	**0.020**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:13	5
Beryllium	**0.0010**	**I**	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:13	5
Calcium	**38**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:13	5
Chromium	**0.0014**	**I**	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:13	5
Cobalt	**0.012**		0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:13	5
Lead	**0.0018**		0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:13	5
Lithium	**0.040**		0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:13	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:13	5
Selenium	**0.0043**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:13	5
Thallium	**0.00028**	**I**	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:13	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**7.0**		1.0	0.42	mg/L		07/11/16 08:30	07/12/16 12:08	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00066**	**V**	0.00020	0.000070	mg/L		07/11/16 08:47	07/13/16 13:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**640**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**75**		10	3.0	mg/L			07/19/16 15:53	5
Fluoride	**0.29**		0.10	0.032	mg/L			07/29/16 10:49	1
Sulfate	**330**		250	70	mg/L			07/19/16 14:30	50

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**3.06**		0.392	0.479	1.00	0.203	pCi/L	07/11/16 14:27	08/02/16 07:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.8*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:31*	*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**		0.807	1.27	1.00	0.449	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.8*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*84.5*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-104
Date Collected: 07/07/16 13:50
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-4
Matrix: Water

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	13.8		0.898	1.36	5.00	0.449	pCi/L		08/03/16 04:51	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	3.99				SU			07/07/16 13:50	1

Client Sample ID: MW-105

Date Collected: 07/07/16 11:20
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-5

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		07/11/16 08:30	07/11/16 19:17	5
Arsenic	**0.0037**		0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:17	5
Barium	**0.042**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:17	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:17	5
Boron	**1.0**		0.050	0.021	mg/L		07/11/16 08:30	07/11/16 19:17	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:17	5
Calcium	**55**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:17	5
Chromium	**0.0020**	**I**	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:17	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:17	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:17	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:17	5
Molybdenum	**0.0047**	**I**	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:17	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:17	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:17	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		07/11/16 08:47	07/13/16 13:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**270**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**34**		2.0	0.60	mg/L			07/19/16 15:28	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:51	1
Sulfate	**33**		25	7.0	mg/L			07/19/16 14:32	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.51**		0.280	0.311	1.00	0.215	pCi/L	07/11/16 14:27	08/02/16 07:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:35*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.77**		0.373	0.407	1.00	0.424	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*87.5*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	**3.28**		0.466	0.512	5.00	0.424	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-105
Date Collected: 07/07/16 11:20
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-5
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.99				SU			07/07/16 11:20	1

Client Sample ID: MW-109

Date Collected: 07/07/16 11:48
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-7

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		07/11/16 08:30	07/11/16 19:22	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:22	5
Barium	**0.021**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:22	5
Boron	**0.10**		0.050	0.021	mg/L		07/11/16 08:30	07/11/16 19:22	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:22	5
Calcium	**2.9**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:22	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:22	5
Cobalt	**0.0043**		0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:22	5
Lithium	**0.0060**		0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:22	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:22	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:22	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:22	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000095**	**I V**	0.00020	0.000070	mg/L		07/11/16 08:47	07/13/16 13:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**22**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**6.7**		2.0	0.60	mg/L			07/20/16 10:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 10:57	1
Sulfate	**14**		10	2.8	mg/L			07/19/16 14:21	2

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.979**		0.239	0.255	1.00	0.229	pCi/L	07/11/16 14:27	08/02/16 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.19**		0.349	0.366	1.00	0.450	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*1*
Y Carrier	*83.4*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:12*	*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	**2.17**		0.423	0.446	5.00	0.450	pCi/L		08/03/16 04:51	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-109
Date Collected: 07/07/16 11:48
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-7
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.86				SU			07/07/16 11:48	1

Client Sample ID: MW-110

Date Collected: 07/07/16 13:37
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-8

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		07/11/16 08:30	07/11/16 19:26	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:26	5
Barium	**0.044**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:26	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:26	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:26	5
Calcium	**20**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:26	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:26	5
Cobalt	**0.0041**		0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:26	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:26	5
Lithium	**0.0092**		0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:26	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:26	5
Selenium	**0.0031**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:26	5
Thallium	**0.00025**	**I**	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:26	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		07/11/16 08:30	07/12/16 12:12	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0053**		0.00020	0.000070	mg/L		07/11/16 08:47	07/13/16 13:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**470**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**83**		10	3.0	mg/L			07/20/16 10:54	5
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 11:00	1
Sulfate	**200**		100	28	mg/L			07/19/16 14:35	20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**3.15**		0.397	0.488	1.00	0.195	pCi/L	07/11/16 14:27	08/02/16 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.50**		0.537	0.678	1.00	0.442	pCi/L	07/11/16 15:16	08/01/16 16:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:13*	*1*
Y Carrier	*84.1*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:13*	*1*

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-110
Date Collected: 07/07/16 13:37
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-8
Matrix: Water

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	7.65		0.668	0.835	5.00	0.442	pCi/L		08/03/16 04:51	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.55				SU			07/07/16 13:37	1

Client Sample ID: FB-03

Date Collected: 07/07/16 12:45
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-9

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		07/11/16 08:30	07/11/16 17:38	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 17:38	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 17:38	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:38	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 17:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:38	5
Calcium	0.13	U	0.25	0.13	mg/L		07/11/16 08:30	07/11/16 17:38	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 17:38	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 17:38	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 17:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 17:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 17:38	5
Selenium	**0.00029**	**I**	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 17:38	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 17:38	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000097**	**I V**	0.00020	0.000070	mg/L		07/11/16 08:47	07/13/16 15:01	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			07/13/16 17:48	1
Chloride	0.60	U	2.0	0.60	mg/L			07/20/16 10:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 11:03	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/19/16 13:41	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0347	U	0.118	0.118	1.00	0.239	pCi/L	07/11/16 14:27	08/02/16 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.152	U	0.247	0.247	1.00	0.418	pCi/L	07/11/16 15:16	08/01/16 16:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:13*	*1*
Y Carrier	*81.9*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:13*	*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	0.117	U	0.274	0.274	5.00	0.418	pCi/L		08/03/16 04:51	1

Client Sample ID: EQB-03

Date Collected: 07/07/16 12:00
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-10

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		07/11/16 08:30	07/11/16 17:43	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 17:43	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 17:43	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:43	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 17:43	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:43	5
Calcium	0.13	U	0.25	0.13	mg/L		07/11/16 08:30	07/11/16 17:43	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 17:43	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 17:43	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 17:43	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 17:43	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 17:43	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 17:43	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 17:43	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		07/11/16 08:47	07/13/16 15:03	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			07/13/16 17:48	1
Chloride	0.60	U	2.0	0.60	mg/L			07/20/16 10:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 11:06	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/19/16 13:41	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0999	U	0.113	0.113	1.00	0.249	pCi/L	07/11/16 14:27	08/02/16 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0310	U	0.207	0.207	1.00	0.381	pCi/L	07/11/16 15:16	08/01/16 16:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:14*	*1*
Y Carrier	*85.6*		*40 - 110*	*07/11/16 15:16*	*08/01/16 16:14*	*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	-0.131	U	0.235	0.236	5.00	0.381	pCi/L		08/03/16 04:51	1

Client Sample ID: DUP-04

Date Collected: 07/07/16 08:33
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-11

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		07/11/16 08:30	07/11/16 19:31	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 19:31	5
Barium	**0.053**		0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 19:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:31	5
Boron	**0.36**		0.050	0.021	mg/L		07/11/16 08:30	07/11/16 19:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 19:31	5
Calcium	**4.0**		0.25	0.13	mg/L		07/11/16 08:30	07/11/16 19:31	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 19:31	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 19:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 19:31	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 19:31	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 19:31	5
Selenium	**0.0025**		0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 19:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 19:31	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		07/11/16 08:47	07/13/16 15:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**70**		5.0	3.4	mg/L			07/13/16 17:48	1
Chloride	**7.0**		2.0	0.60	mg/L			07/20/16 10:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 12:03	1
Sulfate	**32**		25	7.0	mg/L			07/19/16 14:21	5

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.45**		0.337	0.403	1.00	0.153	pCi/L	07/11/16 15:50	08/02/16 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*07/11/16 15:50*	*08/02/16 07:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.26**		0.533	0.661	1.00	0.488	pCi/L	07/11/16 15:45	08/01/16 16:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*07/11/16 15:45*	*08/01/16 16:14*	*1*
Y Carrier	*86.7*		*40 - 110*	*07/11/16 15:45*	*08/01/16 16:14*	*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	**6.71**		0.630	0.774	5.00	0.488	pCi/L		08/03/16 04:51	1

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: DUP-04
Date Collected: 07/07/16 08:33
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-11
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.45				SU			07/07/16 08:33	1

Client Sample ID: MW-101

Date Collected: 07/08/16 13:38
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-12

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		07/15/16 09:45	07/15/16 18:02	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/15/16 09:45	07/15/16 18:02	5
Barium	**0.0093**		0.0025	0.00049	mg/L		07/15/16 09:45	07/15/16 18:02	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:02	5
Boron	0.021	U	0.050	0.021	mg/L		07/15/16 09:45	07/15/16 18:02	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:02	5
Calcium	**0.40**		0.25	0.13	mg/L		07/15/16 09:45	07/15/16 18:02	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/15/16 09:45	07/15/16 18:02	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/15/16 09:45	07/15/16 18:02	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/15/16 09:45	07/15/16 18:02	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/15/16 09:45	07/15/16 18:02	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/15/16 09:45	07/15/16 18:02	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/15/16 09:45	07/15/16 18:02	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/15/16 09:45	07/15/16 18:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000077**	**I V**	0.00020	0.000070	mg/L		07/11/16 11:02	07/13/16 15:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6.0**		5.0	3.4	mg/L			07/14/16 16:38	1
Chloride	**4.9**		2.0	0.60	mg/L			07/21/16 08:43	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 12:11	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/19/16 13:41	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.433**		0.194	0.198	1.00	0.256	pCi/L	07/12/16 17:10	08/03/16 13:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*07/12/16 17:10*	*08/03/16 13:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.02**		0.332	0.345	1.00	0.425	pCi/L	07/12/16 17:17	08/02/16 18:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*1*
Y Carrier	*83.0*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*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	**1.46**		0.385	0.398	5.00	0.425	pCi/L		08/04/16 00:07	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 07/08/16 13:38
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-12
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.96				SU			07/08/16 13:38	1

Client Sample ID: MW-106

Date Collected: 07/08/16 15:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-13

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		07/15/16 09:45	07/15/16 18:07	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/15/16 09:45	07/15/16 18:07	5
Barium	**0.015**		0.0025	0.00049	mg/L		07/15/16 09:45	07/15/16 18:07	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:07	5
Boron	0.021	U	0.050	0.021	mg/L		07/15/16 09:45	07/15/16 18:07	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:07	5
Calcium	**0.82**		0.25	0.13	mg/L		07/15/16 09:45	07/15/16 18:07	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/15/16 09:45	07/15/16 18:07	5
Cobalt	**0.00057**	**I**	0.0025	0.00040	mg/L		07/15/16 09:45	07/15/16 18:07	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/15/16 09:45	07/15/16 18:07	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/15/16 09:45	07/15/16 18:07	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/15/16 09:45	07/15/16 18:07	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/15/16 09:45	07/15/16 18:07	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/15/16 09:45	07/15/16 18:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000085**	**I V**	0.00020	0.000070	mg/L		07/11/16 11:02	07/13/16 15:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10**		5.0	3.4	mg/L			07/14/16 16:38	1
Chloride	**3.5**		2.0	0.60	mg/L			07/21/16 08:43	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 12:14	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/19/16 13:41	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.379**		0.162	0.166	1.00	0.188	pCi/L	07/12/16 17:10	08/03/16 13:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.2*		*40 - 110*	*07/12/16 17:10*	*08/03/16 13:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.638**		0.306	0.312	1.00	0.439	pCi/L	07/12/16 17:17	08/02/16 18:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.2*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*1*
Y Carrier	*86.0*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*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	**1.02**		0.346	0.353	5.00	0.439	pCi/L		08/04/16 00:07	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-106
Date Collected: 07/08/16 15:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-13
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.49				SU			07/08/16 15:34	1

Client Sample ID: EB-04

Date Collected: 07/08/16 14:11
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-14

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		07/15/16 09:45	07/15/16 18:11	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/15/16 09:45	07/15/16 18:11	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/15/16 09:45	07/15/16 18:11	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:11	5
Boron	0.021	U	0.050	0.021	mg/L		07/15/16 09:45	07/15/16 18:11	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:11	5
Calcium	0.13	U	0.25	0.13	mg/L		07/15/16 09:45	07/15/16 18:11	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/15/16 09:45	07/15/16 18:11	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/15/16 09:45	07/15/16 18:11	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/15/16 09:45	07/15/16 18:11	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/15/16 09:45	07/15/16 18:11	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/15/16 09:45	07/15/16 18:11	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/15/16 09:45	07/15/16 18:11	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/15/16 09:45	07/15/16 18:11	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000083**	**I V**	0.00020	0.000070	mg/L		07/11/16 11:02	07/13/16 15:08	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**30**		5.0	3.4	mg/L			07/14/16 16:38	1
Chloride	0.60	U	2.0	0.60	mg/L			07/21/16 08:43	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 12:17	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/19/16 13:48	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.147	U	0.152	0.153	1.00	0.246	pCi/L	07/12/16 17:10	08/03/16 13:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*07/12/16 17:10*	*08/03/16 13:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.295	U	0.302	0.303	1.00	0.491	pCi/L	07/12/16 17:17	08/02/16 18:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*1*
Y Carrier	*79.3*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*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	0.442	U	0.338	0.340	5.00	0.491	pCi/L		08/04/16 00:07	1

Client Sample ID: DUP-05

Date Collected: 07/08/16 14:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-15

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		07/15/16 09:45	07/15/16 18:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/15/16 09:45	07/15/16 18:16	5
Barium	**0.0091**		0.0025	0.00049	mg/L		07/15/16 09:45	07/15/16 18:16	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:16	5
Boron	0.021	U	0.050	0.021	mg/L		07/15/16 09:45	07/15/16 18:16	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 18:16	5
Calcium	**0.40**		0.25	0.13	mg/L		07/15/16 09:45	07/15/16 18:16	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/15/16 09:45	07/15/16 18:16	5
Cobalt	**0.00041**	**I**	0.0025	0.00040	mg/L		07/15/16 09:45	07/15/16 18:16	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/15/16 09:45	07/15/16 18:16	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/15/16 09:45	07/15/16 18:16	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/15/16 09:45	07/15/16 18:16	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/15/16 09:45	07/15/16 18:16	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/15/16 09:45	07/15/16 18:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000083**	**I V**	0.00020	0.000070	mg/L		07/11/16 11:02	07/13/16 15:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4.0**	**I**	5.0	3.4	mg/L			07/14/16 16:38	1
Chloride	**5.2**		2.0	0.60	mg/L			07/21/16 08:43	1
Fluoride	0.032	U	0.10	0.032	mg/L			07/29/16 12:20	1
Sulfate	1.4	U	5.0	1.4	mg/L			07/20/16 09:28	1

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.488**		0.193	0.198	1.00	0.239	pCi/L	07/12/16 17:10	08/03/16 13:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*07/12/16 17:10*	*08/03/16 13:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.973**		0.341	0.352	1.00	0.457	pCi/L	07/12/16 17:17	08/02/16 18:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*1*
Y Carrier	*84.9*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:39*	*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	**1.46**		0.392	0.404	5.00	0.457	pCi/L		08/04/16 00:07	1

Client Sample Results

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: DUP-05
Date Collected: 07/08/16 14:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-15
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.96				SU			07/08/16 14:34	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.
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
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-102
Date Collected: 07/07/16 16:05
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:04	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	314932	07/19/16 15:28	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	314889	07/19/16 13:49	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 16:05	BWS	TAL PEN

Client Sample ID: MW-103
Date Collected: 07/07/16 09:35
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:08	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	314932	07/19/16 15:28	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	314889	07/19/16 14:30	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 09:35	BWS	TAL PEN

Client Sample ID: MW-104
Date Collected: 07/07/16 13:50
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:13	RJB	TAL PEN

Client Sample ID: MW-104

Date Collected: 07/07/16 13:50
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	314053	07/12/16 12:08	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	314932	07/19/16 15:53	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		50	314889	07/19/16 14:30	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263018	08/02/16 07:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 13:50	BWS	TAL PEN

Client Sample ID: MW-105

Date Collected: 07/07/16 11:20
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:17	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 13:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	314932	07/19/16 15:28	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:51	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	314889	07/19/16 14:32	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263017	08/02/16 07:35	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 11:20	BWS	TAL PEN

Client Sample ID: MW-109

Date Collected: 07/07/16 11:48
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:22	RJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-109
Date Collected: 07/07/16 11:48
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 13:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315118	07/20/16 10:33	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 10:57	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	314889	07/19/16 14:21	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263017	08/02/16 07:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 11:48	BWS	TAL PEN

Client Sample ID: MW-110
Date Collected: 07/07/16 13:37
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:26	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	314053	07/12/16 12:12	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	315118	07/20/16 10:54	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 11:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	314889	07/19/16 14:35	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263017	08/02/16 07:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 13:37	BWS	TAL PEN

Client Sample ID: FB-03
Date Collected: 07/07/16 12:45
Date Received: 07/07/16 16:50

Lab Sample ID: 400-124148-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 17:38	RJB	TAL PEN

Client Sample ID: FB-03

Lab Sample ID: 400-124148-9

Date Collected: 07/07/16 12:45

Matrix: Water

Date Received: 07/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315118	07/20/16 10:33	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 11:03	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	314889	07/19/16 13:41	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263017	08/02/16 07:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262859	08/01/16 16:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL

Client Sample ID: EQB-03

Lab Sample ID: 400-124148-10

Date Collected: 07/07/16 12:00

Matrix: Water

Date Received: 07/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 17:43	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315118	07/20/16 10:33	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316341	07/29/16 11:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	314889	07/19/16 13:41	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 14:27	MCJ	TAL SL
Total/NA	Analysis	9315		1	263017	08/02/16 07:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:16	MCJ	TAL SL
Total/NA	Analysis	9320		1	262857	08/01/16 16:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL

Client Sample ID: DUP-04

Lab Sample ID: 400-124148-11

Date Collected: 07/07/16 08:33

Matrix: Water

Date Received: 07/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			313433	07/11/16 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	313813	07/11/16 19:31	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 08:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314186	07/13/16 17:48	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315118	07/20/16 10:38	LSS	TAL PEN

Client Sample ID: DUP-04

Lab Sample ID: 400-124148-11

Date Collected: 07/07/16 08:33

Matrix: Water

Date Received: 07/07/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	316356	07/29/16 12:03	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	314889	07/19/16 14:21	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			259997	07/11/16 15:50	MCJ	TAL SL
Total/NA	Analysis	9315		1	263017	08/02/16 07:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260007	07/11/16 15:45	MCJ	TAL SL
Total/NA	Analysis	9320		1	262857	08/01/16 16:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263077	08/03/16 04:51	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/07/16 08:33	BWS	TAL PEN

Client Sample ID: MW-101

Lab Sample ID: 400-124148-12

Date Collected: 07/08/16 13:38

Matrix: Water

Date Received: 07/08/16 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314425	07/15/16 09:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	314611	07/15/16 18:02	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 11:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314332	07/14/16 16:38	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:43	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316356	07/29/16 12:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	314889	07/19/16 13:41	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			260213	07/12/16 17:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	263351	08/03/16 13:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260215	07/12/16 17:17	MCJ	TAL SL
Total/NA	Analysis	9320		1	263017	08/02/16 18:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263369	08/04/16 00:07	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/08/16 13:38	BWS	TAL PEN

Client Sample ID: MW-106

Lab Sample ID: 400-124148-13

Date Collected: 07/08/16 15:34

Matrix: Water

Date Received: 07/08/16 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314425	07/15/16 09:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	314611	07/15/16 18:07	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 11:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314332	07/14/16 16:38	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:43	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316356	07/29/16 12:14	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	314889	07/19/16 13:41	LSS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: MW-106
Date Collected: 07/08/16 15:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			260213	07/12/16 17:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	263351	08/03/16 13:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260215	07/12/16 17:17	MCJ	TAL SL
Total/NA	Analysis	9320		1	263017	08/02/16 18:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263369	08/04/16 00:07	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/08/16 15:34	BWS	TAL PEN

Client Sample ID: EB-04
Date Collected: 07/08/16 14:11
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314425	07/15/16 09:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	314611	07/15/16 18:11	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 11:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314332	07/14/16 16:38	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:43	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316356	07/29/16 12:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	314889	07/19/16 13:48	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			260213	07/12/16 17:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	263351	08/03/16 13:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260215	07/12/16 17:17	MCJ	TAL SL
Total/NA	Analysis	9320		1	263017	08/02/16 18:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263369	08/04/16 00:07	ALS	TAL SL

Client Sample ID: DUP-05
Date Collected: 07/08/16 14:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314425	07/15/16 09:45	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	314611	07/15/16 18:16	RJB	TAL PEN
Total/NA	Prep	7470A			313660	07/11/16 11:02	JAP	TAL PEN
Total/NA	Analysis	7470A		1	314173	07/13/16 15:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	314332	07/14/16 16:38	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	315325	07/21/16 08:43	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	316356	07/29/16 12:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	315119	07/20/16 09:28	LSS	TAL PEN
Total/NA	Prep	PrecSep-21			260213	07/12/16 17:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	263198	08/03/16 13:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			260215	07/12/16 17:17	MCJ	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Client Sample ID: DUP-05

Date Collected: 07/08/16 14:34
Date Received: 07/08/16 16:45

Lab Sample ID: 400-124148-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9320		1	263017	08/02/16 18:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	263369	08/04/16 00:07	ALS	TAL SL
Total/NA	Analysis	Field Sampling		1	317115	07/08/16 14:34	BWS	TAL PEN

Laboratory References:

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

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

Metals

Prep Batch: 313433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total Recoverable	Water	3005A	
400-124148-3	MW-103	Total Recoverable	Water	3005A	
400-124148-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-124148-4	MW-104	Total Recoverable	Water	3005A	
400-124148-5	MW-105	Total Recoverable	Water	3005A	
400-124148-7	MW-109	Total Recoverable	Water	3005A	
400-124148-8 - DL	MW-110	Total Recoverable	Water	3005A	
400-124148-8	MW-110	Total Recoverable	Water	3005A	
400-124148-9	FB-03	Total Recoverable	Water	3005A	
400-124148-10	EQB-03	Total Recoverable	Water	3005A	
400-124148-11	DUP-04	Total Recoverable	Water	3005A	
MB 400-313433/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-313433/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124075-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124075-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 313660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	7470A	
400-124148-3	MW-103	Total/NA	Water	7470A	
400-124148-4	MW-104	Total/NA	Water	7470A	
400-124148-5	MW-105	Total/NA	Water	7470A	
400-124148-7	MW-109	Total/NA	Water	7470A	
400-124148-8	MW-110	Total/NA	Water	7470A	
400-124148-9	FB-03	Total/NA	Water	7470A	
400-124148-10	EQB-03	Total/NA	Water	7470A	
400-124148-11	DUP-04	Total/NA	Water	7470A	
400-124148-12	MW-101	Total/NA	Water	7470A	
400-124148-13	MW-106	Total/NA	Water	7470A	
400-124148-14	EB-04	Total/NA	Water	7470A	
400-124148-15	DUP-05	Total/NA	Water	7470A	
MB 400-313660/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-313660/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-124161-B-10-B MS	Matrix Spike	Total/NA	Water	7470A	
400-124161-B-10-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 313813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total Recoverable	Water	6020	313433
400-124148-3	MW-103	Total Recoverable	Water	6020	313433
400-124148-4	MW-104	Total Recoverable	Water	6020	313433
400-124148-5	MW-105	Total Recoverable	Water	6020	313433
400-124148-7	MW-109	Total Recoverable	Water	6020	313433
400-124148-8	MW-110	Total Recoverable	Water	6020	313433
400-124148-9	FB-03	Total Recoverable	Water	6020	313433
400-124148-10	EQB-03	Total Recoverable	Water	6020	313433
400-124148-11	DUP-04	Total Recoverable	Water	6020	313433
MB 400-313433/1-A ^5	Method Blank	Total Recoverable	Water	6020	313433
LCS 400-313433/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	313433
400-124075-B-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	313433
400-124075-B-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	313433

Analysis Batch: 314053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-4 - DL	MW-104	Total Recoverable	Water	6020	313433
400-124148-8 - DL	MW-110	Total Recoverable	Water	6020	313433

Analysis Batch: 314173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	7470A	313660
400-124148-3	MW-103	Total/NA	Water	7470A	313660
400-124148-4	MW-104	Total/NA	Water	7470A	313660
400-124148-5	MW-105	Total/NA	Water	7470A	313660
400-124148-7	MW-109	Total/NA	Water	7470A	313660
400-124148-8	MW-110	Total/NA	Water	7470A	313660
400-124148-9	FB-03	Total/NA	Water	7470A	313660
400-124148-10	EQB-03	Total/NA	Water	7470A	313660
400-124148-11	DUP-04	Total/NA	Water	7470A	313660
400-124148-12	MW-101	Total/NA	Water	7470A	313660
400-124148-13	MW-106	Total/NA	Water	7470A	313660
400-124148-14	EB-04	Total/NA	Water	7470A	313660
400-124148-15	DUP-05	Total/NA	Water	7470A	313660
MB 400-313660/14-A	Method Blank	Total/NA	Water	7470A	313660
LCS 400-313660/15-A	Lab Control Sample	Total/NA	Water	7470A	313660
400-124161-B-10-B MS	Matrix Spike	Total/NA	Water	7470A	313660
400-124161-B-10-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	313660

Prep Batch: 314425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total Recoverable	Water	3005A	
400-124148-13	MW-106	Total Recoverable	Water	3005A	
400-124148-14	EB-04	Total Recoverable	Water	3005A	
400-124148-15	DUP-05	Total Recoverable	Water	3005A	
MB 400-314425/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-314425/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-124351-D-2-E MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-124351-D-2-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 314611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total Recoverable	Water	6020	314425
400-124148-13	MW-106	Total Recoverable	Water	6020	314425
400-124148-14	EB-04	Total Recoverable	Water	6020	314425
400-124148-15	DUP-05	Total Recoverable	Water	6020	314425
MB 400-314425/1-A ^5	Method Blank	Total Recoverable	Water	6020	314425
LCS 400-314425/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	314425
400-124351-D-2-E MS ^5	Matrix Spike	Total Recoverable	Water	6020	314425
400-124351-D-2-F MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	314425

General Chemistry

Analysis Batch: 314186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	SM 2540C	
400-124148-3	MW-103	Total/NA	Water	SM 2540C	
400-124148-4	MW-104	Total/NA	Water	SM 2540C	
400-124148-5	MW-105	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 314186 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-7	MW-109	Total/NA	Water	SM 2540C	
400-124148-8	MW-110	Total/NA	Water	SM 2540C	
400-124148-9	FB-03	Total/NA	Water	SM 2540C	
400-124148-10	EQB-03	Total/NA	Water	SM 2540C	
400-124148-11	DUP-04	Total/NA	Water	SM 2540C	
MB 400-314186/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-314186/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124148-A-6 DU	400-124148-A-6 DU	Total/NA	Water	SM 2540C	

Analysis Batch: 314332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total/NA	Water	SM 2540C	
400-124148-13	MW-106	Total/NA	Water	SM 2540C	
400-124148-14	EB-04	Total/NA	Water	SM 2540C	
400-124148-15	DUP-05	Total/NA	Water	SM 2540C	
MB 400-314332/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-314332/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-124202-J-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 314889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-124148-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-124148-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-124148-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-124148-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-124148-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-124148-9	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-124148-10	EQB-03	Total/NA	Water	SM 4500 SO4 E	
400-124148-11	DUP-04	Total/NA	Water	SM 4500 SO4 E	
400-124148-12	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-124148-13	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-124148-14	EB-04	Total/NA	Water	SM 4500 SO4 E	
MB 400-314889/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-314889/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-124148-A-6 MS	400-124148-A-6 MS	Total/NA	Water	SM 4500 SO4 E	
400-124148-A-6 MSD	400-124148-A-6 MSD	Total/NA	Water	SM 4500 SO4 E	
400-124007-D-2 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 314932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-124148-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-124148-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-124148-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
MB 400-314932/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-314932/11	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-124148-A-1 MS	400-124148-A-1 MS	Total/NA	Water	SM 4500 Cl- E	
400-124148-A-1 MSD	400-124148-A-1 MSD	Total/NA	Water	SM 4500 Cl- E	
400-124571-F-8 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 315118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-124148-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-124148-9	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-124148-10	EQB-03	Total/NA	Water	SM 4500 Cl- E	
400-124148-11	DUP-04	Total/NA	Water	SM 4500 Cl- E	
MB 400-315118/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-315118/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-124627-B-12 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-124627-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-124627-B-8 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 315119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-15	DUP-05	Total/NA	Water	SM 4500 SO4 E	
MB 400-315119/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-315119/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-124627-B-12 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-124627-B-12 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-124627-B-7 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 315325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-124148-13	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-124148-14	EB-04	Total/NA	Water	SM 4500 Cl- E	
400-124148-15	DUP-05	Total/NA	Water	SM 4500 Cl- E	
MB 400-315325/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-315325/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-124027-A-8 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-124027-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-124027-A-9 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 316341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	SM 4500 F C	
400-124148-3	MW-103	Total/NA	Water	SM 4500 F C	
400-124148-4	MW-104	Total/NA	Water	SM 4500 F C	
400-124148-5	MW-105	Total/NA	Water	SM 4500 F C	
400-124148-7	MW-109	Total/NA	Water	SM 4500 F C	
400-124148-8	MW-110	Total/NA	Water	SM 4500 F C	
400-124148-9	FB-03	Total/NA	Water	SM 4500 F C	
400-124148-10	EQB-03	Total/NA	Water	SM 4500 F C	
MB 400-316341/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-316341/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-124075-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-124075-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-124148-3 DU	MW-103	Total/NA	Water	SM 4500 F C	

Analysis Batch: 316356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-11	DUP-04	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 316356 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total/NA	Water	SM 4500 F C	
400-124148-13	MW-106	Total/NA	Water	SM 4500 F C	
400-124148-14	EB-04	Total/NA	Water	SM 4500 F C	
400-124148-15	DUP-05	Total/NA	Water	SM 4500 F C	
MB 400-316356/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-316356/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-124148-11 MS	DUP-04	Total/NA	Water	SM 4500 F C	
400-124148-11 MSD	DUP-04	Total/NA	Water	SM 4500 F C	

Rad

Prep Batch: 259997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	PrecSep-21	
400-124148-3	MW-103	Total/NA	Water	PrecSep-21	
400-124148-4	MW-104	Total/NA	Water	PrecSep-21	
400-124148-5	MW-105	Total/NA	Water	PrecSep-21	
400-124148-7	MW-109	Total/NA	Water	PrecSep-21	
400-124148-8	MW-110	Total/NA	Water	PrecSep-21	
400-124148-9	FB-03	Total/NA	Water	PrecSep-21	
400-124148-10	EQB-03	Total/NA	Water	PrecSep-21	
400-124148-11	DUP-04	Total/NA	Water	PrecSep-21	
MB 160-259997/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259997/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-259997/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 260007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	PrecSep_0	
400-124148-3	MW-103	Total/NA	Water	PrecSep_0	
400-124148-4	MW-104	Total/NA	Water	PrecSep_0	
400-124148-5	MW-105	Total/NA	Water	PrecSep_0	
400-124148-7	MW-109	Total/NA	Water	PrecSep_0	
400-124148-8	MW-110	Total/NA	Water	PrecSep_0	
400-124148-9	FB-03	Total/NA	Water	PrecSep_0	
400-124148-10	EQB-03	Total/NA	Water	PrecSep_0	
400-124148-11	DUP-04	Total/NA	Water	PrecSep_0	
MB 160-260007/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-260007/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-260007/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 260213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total/NA	Water	PrecSep-21	
400-124148-13	MW-106	Total/NA	Water	PrecSep-21	
400-124148-14	EB-04	Total/NA	Water	PrecSep-21	
400-124148-15	DUP-05	Total/NA	Water	PrecSep-21	
MB 160-260213/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-260213/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-260213/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 260215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-12	MW-101	Total/NA	Water	PrecSep_0	
400-124148-13	MW-106	Total/NA	Water	PrecSep_0	
400-124148-14	EB-04	Total/NA	Water	PrecSep_0	
400-124148-15	DUP-05	Total/NA	Water	PrecSep_0	
MB 160-260215/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-260215/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-260215/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Field Service / Mobile Lab

Analysis Batch: 317115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124148-2	MW-102	Total/NA	Water	Field Sampling	
400-124148-3	MW-103	Total/NA	Water	Field Sampling	
400-124148-4	MW-104	Total/NA	Water	Field Sampling	
400-124148-5	MW-105	Total/NA	Water	Field Sampling	
400-124148-7	MW-109	Total/NA	Water	Field Sampling	
400-124148-8	MW-110	Total/NA	Water	Field Sampling	
400-124148-11	DUP-04	Total/NA	Water	Field Sampling	
400-124148-12	MW-101	Total/NA	Water	Field Sampling	
400-124148-13	MW-106	Total/NA	Water	Field Sampling	
400-124148-15	DUP-05	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-313433/1-A ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		07/11/16 08:30	07/11/16 17:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/11/16 08:30	07/11/16 17:29	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/11/16 08:30	07/11/16 17:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:29	5
Boron	0.021	U	0.050	0.021	mg/L		07/11/16 08:30	07/11/16 17:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/11/16 08:30	07/11/16 17:29	5
Calcium	0.13	U	0.25	0.13	mg/L		07/11/16 08:30	07/11/16 17:29	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/11/16 08:30	07/11/16 17:29	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/11/16 08:30	07/11/16 17:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/11/16 08:30	07/11/16 17:29	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/11/16 08:30	07/11/16 17:29	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/11/16 08:30	07/11/16 17:29	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/11/16 08:30	07/11/16 17:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/11/16 08:30	07/11/16 17:29	5

Lab Sample ID: LCS 400-313433/2-A ^1
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0545		mg/L		109	80 - 120
Arsenic	0.0500	0.0541		mg/L		108	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0487		mg/L		97	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0492		mg/L		98	80 - 120
Calcium	5.00	4.89		mg/L		98	80 - 120
Chromium	0.0500	0.0502		mg/L		100	80 - 120
Cobalt	0.0500	0.0483		mg/L		97	80 - 120
Lead	0.0500	0.0495		mg/L		99	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.0500	0.0504		mg/L		101	80 - 120
Selenium	0.0500	0.0522		mg/L		104	80 - 120
Thallium	0.0100	0.0115		mg/L		115	80 - 120

Lab Sample ID: 400-124075-B-2-C MS ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0598		mg/L		120	75 - 125
Arsenic	0.00050	I	0.0500	0.0577		mg/L		114	75 - 125
Barium	0.025		0.0500	0.0765		mg/L		104	75 - 125
Beryllium	0.00034	U	0.0500	0.0507		mg/L		101	75 - 125
Boron	2.9	L	0.100	3.07	L J3	mg/L		151	75 - 125
Cadmium	0.00036	I	0.0500	0.0505		mg/L		100	75 - 125
Calcium	54		5.00	58.9		mg/L		107	75 - 125
Chromium	0.0011	U	0.0500	0.0520		mg/L		104	75 - 125

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

Lab Sample ID: 400-124075-B-2-C MS ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 313433

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0512		mg/L		102	75 - 125
Lead	0.00035	U	0.0500	0.0512		mg/L		102	75 - 125
Lithium	0.024		0.0500	0.0754		mg/L		102	75 - 125
Molybdenum	1.9	L	0.0500	1.96	L	mg/L		111	75 - 125
Selenium	0.0061		0.0500	0.0597		mg/L		107	75 - 125
Thallium	0.00016	I	0.0100	0.0120		mg/L		118	75 - 125

Lab Sample ID: 400-124075-B-2-D MSD ^5
Matrix: Water
Analysis Batch: 313813

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 313433

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	0.0570		mg/L		114	75 - 125	5	20
Arsenic	0.00050	I	0.0500	0.0564		mg/L		112	75 - 125	2	20
Barium	0.025		0.0500	0.0749		mg/L		101	75 - 125	2	20
Beryllium	0.00034	U	0.0500	0.0507		mg/L		101	75 - 125	0	20
Boron	2.9	L	0.100	3.06	L J3	mg/L		136	75 - 125	1	20
Cadmium	0.00036	I	0.0500	0.0500		mg/L		99	75 - 125	1	20
Calcium	54		5.00	58.1		mg/L		90	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0506		mg/L		101	75 - 125	3	20
Cobalt	0.00040	U	0.0500	0.0501		mg/L		100	75 - 125	2	20
Lead	0.00035	U	0.0500	0.0498		mg/L		100	75 - 125	3	20
Lithium	0.024		0.0500	0.0749		mg/L		101	75 - 125	1	20
Molybdenum	1.9	L	0.0500	1.88	J3 L	mg/L		-31	75 - 125	4	20
Selenium	0.0061		0.0500	0.0580		mg/L		104	75 - 125	3	20
Thallium	0.00016	I	0.0100	0.0117		mg/L		116	75 - 125	2	20

Lab Sample ID: MB 400-314425/1-A ^5
Matrix: Water
Analysis Batch: 314611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 314425

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		07/15/16 09:45	07/15/16 17:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/15/16 09:45	07/15/16 17:40	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/15/16 09:45	07/15/16 17:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 17:40	5
Boron	0.021	U	0.050	0.021	mg/L		07/15/16 09:45	07/15/16 17:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/15/16 09:45	07/15/16 17:40	5
Calcium	0.13	U	0.25	0.13	mg/L		07/15/16 09:45	07/15/16 17:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/15/16 09:45	07/15/16 17:40	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/15/16 09:45	07/15/16 17:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/15/16 09:45	07/15/16 17:40	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		07/15/16 09:45	07/15/16 17:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		07/15/16 09:45	07/15/16 17:40	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		07/15/16 09:45	07/15/16 17:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/15/16 09:45	07/15/16 17:40	5

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

Lab Sample ID: LCS 400-314425/2-A ^1
Matrix: Water
Analysis Batch: 314611

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 314425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0594		mg/L		119	80 - 120
Arsenic	0.0500	0.0554		mg/L		111	80 - 120
Barium	0.0500	0.0475		mg/L		95	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Boron	0.100	0.0951		mg/L		95	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	5.00	4.77		mg/L		95	80 - 120
Chromium	0.0500	0.0517		mg/L		103	80 - 120
Cobalt	0.0500	0.0513		mg/L		103	80 - 120
Lead	0.0500	0.0484		mg/L		97	80 - 120
Lithium	0.0500	0.0530		mg/L		106	80 - 120
Molybdenum	0.0500	0.0509		mg/L		102	80 - 120
Selenium	0.0500	0.0530		mg/L		106	80 - 120
Thallium	0.0100	0.00989		mg/L		99	80 - 120

Lab Sample ID: 400-124351-D-2-E MS ^5
Matrix: Water
Analysis Batch: 314611

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 314425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0602		mg/L		120	75 - 125
Arsenic	0.00046	U	0.0500	0.0555		mg/L		111	75 - 125
Barium	0.032		0.0500	0.0794		mg/L		94	75 - 125
Beryllium	0.00034	U	0.0500	0.0517		mg/L		103	75 - 125
Boron	0.021	U	0.100	0.103		mg/L		103	75 - 125
Cadmium	0.00034	U	0.0500	0.0501		mg/L		100	75 - 125
Calcium	0.50		5.00	5.33		mg/L		97	75 - 125
Chromium	0.0041		0.0500	0.0562		mg/L		104	75 - 125
Cobalt	0.0050		0.0500	0.0563		mg/L		103	75 - 125
Lead	0.00035	U	0.0500	0.0434		mg/L		87	75 - 125
Lithium	0.0049	I	0.0500	0.0514		mg/L		93	75 - 125
Molybdenum	0.00085	U	0.0500	0.0520		mg/L		104	75 - 125
Selenium	0.00062	I	0.0500	0.0528		mg/L		104	75 - 125
Thallium	0.000085	U	0.0100	0.00965		mg/L		96	75 - 125

Lab Sample ID: 400-124351-D-2-F MSD ^5
Matrix: Water
Analysis Batch: 314611

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 314425

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	0.0595		mg/L		119	75 - 125	1	20
Arsenic	0.00046	U	0.0500	0.0573		mg/L		115	75 - 125	3	20
Barium	0.032		0.0500	0.0796		mg/L		94	75 - 125	0	20
Beryllium	0.00034	U	0.0500	0.0513		mg/L		103	75 - 125	1	20
Boron	0.021	U	0.100	0.0981		mg/L		98	75 - 125	5	20
Cadmium	0.00034	U	0.0500	0.0512		mg/L		102	75 - 125	2	20
Calcium	0.50		5.00	5.56		mg/L		101	75 - 125	4	20
Chromium	0.0041		0.0500	0.0562		mg/L		104	75 - 125	0	20

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

Lab Sample ID: 400-124351-D-2-F MSD ^5
Matrix: Water
Analysis Batch: 314611

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 314425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0050		0.0500	0.0568		mg/L		104	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0434		mg/L		87	75 - 125	0	20
Lithium	0.0049	I	0.0500	0.0516		mg/L		93	75 - 125	0	20
Molybdenum	0.00085	U	0.0500	0.0512		mg/L		102	75 - 125	2	20
Selenium	0.00062	I	0.0500	0.0534		mg/L		106	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.00979		mg/L		98	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-313660/14-A
Matrix: Water
Analysis Batch: 314173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313660

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000788	I	0.00020	0.000070	mg/L		07/11/16 08:27	07/13/16 13:15	1

Lab Sample ID: LCS 400-313660/15-A
Matrix: Water
Analysis Batch: 314173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313660

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-124161-B-10-B MS
Matrix: Water
Analysis Batch: 314173

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 313660

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000075	I V	0.00201	0.00158	J3	mg/L		75	80 - 120

Lab Sample ID: 400-124161-B-10-C MSD
Matrix: Water
Analysis Batch: 314173

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 313660

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000075	I V	0.00201	0.00157	J3	mg/L		74	80 - 120	0	20

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

Lab Sample ID: MB 400-314186/1
Matrix: Water
Analysis Batch: 314186

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			07/13/16 17:48	1

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

Lab Sample ID: LCS 400-314186/2
Matrix: Water
Analysis Batch: 314186

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	286		mg/L		98	78 - 122		

Lab Sample ID: 400-124148-A-6 DU
Matrix: Water
Analysis Batch: 314186

Client Sample ID: 400-124148-A-6 DU
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	26			26.0		mg/L				0	5

Lab Sample ID: MB 400-314332/1
Matrix: Water
Analysis Batch: 314332

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			07/14/16 16:38	1

Lab Sample ID: LCS 400-314332/2
Matrix: Water
Analysis Batch: 314332

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	284		mg/L		97	78 - 122		

Lab Sample ID: 400-124202-J-2 DU
Matrix: Water
Analysis Batch: 314332

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	1200			1200		mg/L				0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-314932/5
Matrix: Water
Analysis Batch: 314932

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/19/16 14:51	1

Lab Sample ID: LCS 400-314932/11
Matrix: Water
Analysis Batch: 314932

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	31.2		mg/L		104	90 - 110		

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

Lab Sample ID: 400-124148-A-1 MS
Matrix: Water
Analysis Batch: 314932

Client Sample ID: 400-124148-A-1 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.8		10.0	17.1	J3	mg/L		123	73 - 120

Lab Sample ID: 400-124148-A-1 MSD
Matrix: Water
Analysis Batch: 314932

Client Sample ID: 400-124148-A-1 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.8		10.0	17.0	J3	mg/L		122	73 - 120	1	8

Lab Sample ID: 400-124571-F-8 DU
Matrix: Water
Analysis Batch: 314932

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	13000		13000		mg/L		2	8

Lab Sample ID: MB 400-315118/6
Matrix: Water
Analysis Batch: 315118

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/20/16 09:04	1

Lab Sample ID: LCS 400-315118/7
Matrix: Water
Analysis Batch: 315118

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: 400-124627-B-12 MS
Matrix: Water
Analysis Batch: 315118

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	9.3		10.0	20.1		mg/L		108	73 - 120

Lab Sample ID: 400-124627-B-12 MSD
Matrix: Water
Analysis Batch: 315118

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	9.3		10.0	20.2		mg/L		108	73 - 120	0	8

Lab Sample ID: 400-124627-B-8 DU
Matrix: Water
Analysis Batch: 315118

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	18		18.3		mg/L		0.4	8

Lab Sample ID: MB 400-315325/6
Matrix: Water
Analysis Batch: 315325

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			07/21/16 07:19	1

Lab Sample ID: LCS 400-315325/7
Matrix: Water
Analysis Batch: 315325

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	31.0		mg/L		103	90 - 110		

Lab Sample ID: 400-124027-A-8 MS
Matrix: Water
Analysis Batch: 315325

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	0.60	U	10.0	10.5		mg/L		105	73 - 120		

Lab Sample ID: 400-124027-A-8 MSD
Matrix: Water
Analysis Batch: 315325

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	0.60	U	10.0	10.4		mg/L		104	73 - 120	1	8

Lab Sample ID: 400-124027-A-9 DU
Matrix: Water
Analysis Batch: 315325

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride	2000			1990		mg/L				3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-316341/3
Matrix: Water
Analysis Batch: 316341

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			07/29/16 09:45	1

Lab Sample ID: LCS 400-316341/4
Matrix: Water
Analysis Batch: 316341

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	4.36		mg/L		109	90 - 110		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-124075-A-3 MS
Matrix: Water
Analysis Batch: 316341

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	0.15		1.00	1.16		mg/L		101	75 - 125

Lab Sample ID: 400-124075-A-3 MSD
Matrix: Water
Analysis Batch: 316341

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	0.15		1.00	1.14		mg/L		99	75 - 125	2	4

Lab Sample ID: 400-124148-3 DU
Matrix: Water
Analysis Batch: 316341

Client Sample ID: MW-103
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 400-316356/3
Matrix: Water
Analysis Batch: 316356

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			07/29/16 11:55	1

Lab Sample ID: LCS 400-316356/4
Matrix: Water
Analysis Batch: 316356

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	4.19		mg/L		105	90 - 110

Lab Sample ID: 400-124148-11 MS
Matrix: Water
Analysis Batch: 316356

Client Sample ID: DUP-04
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	1.10		mg/L		110	75 - 125

Lab Sample ID: 400-124148-11 MSD
Matrix: Water
Analysis Batch: 316356

Client Sample ID: DUP-04
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	1.07		mg/L		107	75 - 125	3	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-314889/6
Matrix: Water
Analysis Batch: 314889

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			07/19/16 12:08	1

Lab Sample ID: LCS 400-314889/7
Matrix: Water
Analysis Batch: 314889

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	14.5		mg/L		97	90 - 110

Lab Sample ID: 400-124148-A-6 MS
Matrix: Water
Analysis Batch: 314889

Client Sample ID: 400-124148-A-6 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	U	10.0	9.44		mg/L		94	77 - 128

Lab Sample ID: 400-124148-A-6 MSD
Matrix: Water
Analysis Batch: 314889

Client Sample ID: 400-124148-A-6 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	9.38		mg/L		94	77 - 128	1	5

Lab Sample ID: 400-124007-D-2 DU
Matrix: Water
Analysis Batch: 314889

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	1100		1110		mg/L		0.2	5

Lab Sample ID: MB 400-315119/6
Matrix: Water
Analysis Batch: 315119

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			07/20/16 09:06	1

Lab Sample ID: LCS 400-315119/7
Matrix: Water
Analysis Batch: 315119

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	14.7		mg/L		98	90 - 110

Lab Sample ID: 400-124627-B-12 MS
Matrix: Water
Analysis Batch: 315119

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	3.9	I	10.0	14.7		mg/L		108	77 - 128

Lab Sample ID: 400-124627-B-12 MSD
Matrix: Water
Analysis Batch: 315119

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	3.9	I	10.0	14.5		mg/L		106	77 - 128	1	5

Lab Sample ID: 400-124627-B-7 DU
Matrix: Water
Analysis Batch: 315119

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	36		34.8		mg/L		3	5

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-259997/1-A
Matrix: Water
Analysis Batch: 263018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259997

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008964	U	0.123	0.123	1.00	0.239	pCi/L	07/11/16 14:27	08/02/16 07:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*07/11/16 14:27*	*08/02/16 07:30*	*1*

Lab Sample ID: LCS 160-259997/2-A
Matrix: Water
Analysis Batch: 263018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259997

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	14.91		1.58	1.00	0.194	pCi/L	134	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*

Lab Sample ID: LCSD 160-259997/3-A
Matrix: Water
Analysis Batch: 263016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259997

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	11.96		1.31	1.00	0.173	pCi/L	107	68 - 137	1.02	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*

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

Lab Sample ID: MB 160-260213/1-A
Matrix: Water
Analysis Batch: 263351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260213

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01163	U	0.130	0.130	1.00	0.253	pCi/L	07/12/16 17:10	08/03/16 13:40	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110	07/12/16 17:10	08/03/16 13:40	1

Lab Sample ID: LCS 160-260213/2-A
Matrix: Water
Analysis Batch: 263351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260213

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	14.72		1.58	1.00	0.277	pCi/L	132	68 - 137		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	75.5		40 - 110

Lab Sample ID: LCSD 160-260213/3-A
Matrix: Water
Analysis Batch: 263351

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 260213

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	15.07		1.58	1.00	0.176	pCi/L	135	68 - 137	0.11	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	81.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-260007/1-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260007

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.03445	U	0.277	0.277	1.00	0.487	pCi/L	07/11/16 15:16	08/01/16 16:12	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110	07/11/16 15:16	08/01/16 16:12	1
Y Carrier	87.1		40 - 110	07/11/16 15:16	08/01/16 16:12	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-260007/2-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260007

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	17.25		1.86	1.00	0.483	pCi/L	117	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

Lab Sample ID: LCSD 160-260007/3-A
Matrix: Water
Analysis Batch: 262859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 260007

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.8	17.73		1.91	1.00	0.475	pCi/L	120	56 - 140	0.13	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*
Y Carrier	*87.1*		*40 - 110*

Lab Sample ID: MB 160-260215/1-A
Matrix: Water
Analysis Batch: 263017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260215

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1269	U	0.252	0.252	1.00	0.431	pCi/L	07/12/16 17:17	08/02/16 18:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.2*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:38*	*1*
Y Carrier	*88.6*		*40 - 110*	*07/12/16 17:17*	*08/02/16 18:38*	*1*

Lab Sample ID: LCS 160-260215/2-A
Matrix: Water
Analysis Batch: 263017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260215

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	19.34		2.09	1.00	0.468	pCi/L	131	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*75.5*		*40 - 110*
Y Carrier	*81.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-260215/3-A
Matrix: Water
Analysis Batch: 263017

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 260215

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.8	17.82		1.91	1.00	0.497	pCi/L	121	56 - 140	0.38	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*81.5*		*40 - 110*
Y Carrier	*88.6*		*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: Shane Boggs	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Landfill 1	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)	8316_Ra228, 9320_Ra228, Ra226Ra228_GFPC D	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride D	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury D	FieldSampling - Field Sampling Parameters N	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-101	7-7-16	0805	G	Water	Y		X	X	X	X	3	
MW-102		1605		Water	Y		X	X	X	X	3	
MW-103		0935		Water	Y		X	X	X	X	3	
MW-104		1350		Water	Y		X	X	X	X	3	
MW-105		1120		Water	Y		X	X	X	X	3	
MW-106		0940		Water	Y		X	X	X	X	3	
MW-109		1148		Water	Y		X	X	X	X	3	
MW-110		1337		Water	Y		X	X	X	X	3	
FB-05		1245		W	Y		X	X	X	X	3	
~~EBQ~~ EQB-05		1200		W	N		X	X	X	X	3	
Dup-04		0833	G	W	Y		X	X	X	X	3	

400-124148 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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: 7-7-16 1650	Company: RDHEM	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Date/Time: 7/7/16 1650	Company: TA
Date/Time:	Company
Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7°C 1.4°C 1.1°C TR6

8/14/2016

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: Bill Hagendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-53450-23628.1
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:	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		
Email: krmitche@southernco.com	WO #:		Other:
Project Name: CCR Plant Crist Landfill 1	Project #: 40005424		
Site:	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_Ra226Ra226Ra228_GFPC	SM4500_Cl_E, SM4500_SO4_E - Sulfete, 2540C - TDS, 4500_F_C-Fluoride	6020 - SbAs,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	Field Sampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-101	7-8-16	1338	G	Water	N		X	X	X	X	3	
MW-106		1534		Water			X	X	X	X	3	
EB-04		1411		Water			X	X	X	X	3	
DUP-05		1434		Water			X	X	X	X	3	

400-124148 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
1		7-8-16 1645	KOH ENV.		7/8/16 1645	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0 IR

8/14/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-124148-1
SDG Number: Landfill 1

Login Number: 124148
List Number: 1
Creator: Harris, John M

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	0.0°C, 2.7°C, 1.4°C, 1.1°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-124148-1
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126757-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/10/2016 6:14:55 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 13
Chronicle 14
QC Association 16
QC Sample Results 19
Chain of Custody 26
Receipt Checklists 27
Certification Summary 28

Job ID: 400-126757-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126757-1

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 322172 and analytical batch 322475 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 322172 and analytical batch 322885 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) 7470A: The method blank for prep batch 321573 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

Detection Summary

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-126757-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - RA	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium - RA	0.70		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00062	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium - RA	0.00049	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000080	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-126757-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - RA	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium - RA	0.48		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00062	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000091	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.12				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-126757-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - RA	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium - RA	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium - RA	0.00027	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.8	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.19				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-126757-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - RA	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium - RA	0.50		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00094	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000079	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.37				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-307

Lab Sample ID: 400-126757-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - RA	0.0013		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium - RA	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium - RA	1.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt - RA	0.00057	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000084	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.7	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.42				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-126757-1
SDG: Background

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

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 Plant Crist

TestAmerica Job ID: 400-126757-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126757-1	MW-100	Water	09/06/16 10:20	09/06/16 15:56
400-126757-2	MW-107	Water	09/06/16 09:12	09/06/16 15:56
400-126757-3	MW-108	Water	09/06/16 08:05	09/06/16 15:56
400-126757-4	MW-306	Water	09/06/16 11:48	09/06/16 15:56
400-126757-5	MW-307	Water	09/06/16 14:20	09/06/16 15:56

Client Sample Results

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 09/06/16 10:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-1
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		09/12/16 10:28	09/13/16 21:09	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 10:28	09/14/16 13:23	5
Barium	**0.016**		0.0025	0.00049	mg/L		09/12/16 10:28	09/14/16 13:23	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:23	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/14/16 13:23	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:23	5
Calcium	**0.70**		0.25	0.13	mg/L		09/12/16 10:28	09/14/16 13:23	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/14/16 13:23	5
Cobalt	**0.00062**	**I**	0.0025	0.00040	mg/L		09/12/16 10:28	09/14/16 13:23	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/14/16 13:23	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/14/16 13:23	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/14/16 13:23	5
Selenium	**0.00049**	**I**	0.0013	0.00024	mg/L		09/12/16 10:28	09/14/16 13:23	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/14/16 13:23	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000080**	**I V**	0.00020	0.000070	mg/L		09/07/16 08:53	09/09/16 14:00	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			09/10/16 11:45	1
Chloride	**4.3**		2.0	0.60	mg/L			09/08/16 10:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 13:16	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/07/16 10:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.11**				SU			09/06/16 10:20	1

Client Sample Results

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 09/06/16 09:12
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-2
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		09/12/16 10:28	09/13/16 21:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/13/16 21:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/13/16 21:14	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 10:28	09/14/16 13:27	5
Barium	**0.013**		0.0025	0.00049	mg/L		09/12/16 10:28	09/14/16 13:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:27	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/14/16 13:27	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:27	5
Calcium	**0.48**		0.25	0.13	mg/L		09/12/16 10:28	09/14/16 13:27	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/14/16 13:27	5
Cobalt	**0.00062**	**I**	0.0025	0.00040	mg/L		09/12/16 10:28	09/14/16 13:27	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/14/16 13:27	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/14/16 13:27	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 10:28	09/14/16 13:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000091**	**I V**	0.00020	0.000070	mg/L		09/07/16 08:53	09/09/16 14:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**30**		5.0	3.4	mg/L			09/10/16 11:45	1
Chloride	**5.5**		2.0	0.60	mg/L			09/08/16 10:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 13:19	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/07/16 10:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.12**				SU			09/06/16 09:12	1

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 09/06/16 08:05
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-3
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		09/12/16 10:28	09/13/16 21:19	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 10:28	09/14/16 13:32	5
Barium	**0.010**		0.0025	0.00049	mg/L		09/12/16 10:28	09/14/16 13:32	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:32	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/14/16 13:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:32	5
Calcium	**1.0**		0.25	0.13	mg/L		09/12/16 10:28	09/14/16 13:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/14/16 13:32	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 10:28	09/14/16 13:32	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/14/16 13:32	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/14/16 13:32	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/14/16 13:32	5
Selenium	**0.00027**	**I**	0.0013	0.00024	mg/L		09/12/16 10:28	09/14/16 13:32	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/14/16 13:32	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		09/07/16 08:53	09/09/16 14:02	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			09/10/16 11:45	1
Chloride	**6.0**		2.0	0.60	mg/L			09/08/16 10:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 17:41	1
Sulfate	**1.8**	**I**	5.0	1.4	mg/L			09/07/16 10:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.19**				SU			09/06/16 08:05	1

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 09/06/16 11:48
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-4
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		09/12/16 10:28	09/13/16 21:37	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 10:28	09/14/16 13:36	5
Barium	**0.012**		0.0025	0.00049	mg/L		09/12/16 10:28	09/14/16 13:36	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:36	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/14/16 13:36	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:36	5
Calcium	**0.50**		0.25	0.13	mg/L		09/12/16 10:28	09/14/16 13:36	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/14/16 13:36	5
Cobalt	**0.00094**	**I**	0.0025	0.00040	mg/L		09/12/16 10:28	09/14/16 13:36	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/14/16 13:36	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/14/16 13:36	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/14/16 13:36	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 10:28	09/14/16 13:36	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/14/16 13:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000079**	**I V**	0.00020	0.000070	mg/L		09/07/16 08:53	09/09/16 14:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			09/10/16 11:45	1
Chloride	**4.4**		2.0	0.60	mg/L			09/08/16 10:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 17:48	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/07/16 10:25	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.37**				SU			09/06/16 11:48	1

Client Sample ID: MW-307

Date Collected: 09/06/16 14:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-5

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		09/12/16 10:28	09/13/16 21:41	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/13/16 21:41	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/13/16 21:41	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 10:28	09/13/16 21:41	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/13/16 21:41	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0013**		0.0013	0.00046	mg/L		09/12/16 10:28	09/14/16 13:41	5
Barium	**0.017**		0.0025	0.00049	mg/L		09/12/16 10:28	09/14/16 13:41	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:41	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/14/16 13:41	5
Calcium	**1.6**		0.25	0.13	mg/L		09/12/16 10:28	09/14/16 13:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/14/16 13:41	5
Cobalt	**0.00057**	**I**	0.0025	0.00040	mg/L		09/12/16 10:28	09/14/16 13:41	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/14/16 13:41	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/14/16 13:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000084**	**I V**	0.00020	0.000070	mg/L		09/07/16 08:53	09/09/16 14:05	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**44**		5.0	3.4	mg/L			09/10/16 11:45	1
Chloride	**4.0**		2.0	0.60	mg/L			09/08/16 10:26	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 17:50	1
Sulfate	**3.7**	**I**	5.0	1.4	mg/L			09/07/16 10:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.42**				SU			09/06/16 14:20	1

Definitions/Glossary

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
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.
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.

General Chemistry

Qualifier	Qualifier Description
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-100

Date Collected: 09/06/16 10:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	322475	09/13/16 21:09	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	322885	09/14/16 13:23	RJB	TAL PEN
Total/NA	Prep	7470A			321573	09/07/16 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322010	09/09/16 14:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322073	09/10/16 11:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	321897	09/08/16 10:26	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323583	09/21/16 13:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	321727	09/07/16 10:25	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 10:20	BWS	TAL PEN

Client Sample ID: MW-107

Date Collected: 09/06/16 09:12
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	322475	09/13/16 21:14	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	322885	09/14/16 13:27	RJB	TAL PEN
Total/NA	Prep	7470A			321573	09/07/16 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322010	09/09/16 14:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322073	09/10/16 11:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	321897	09/08/16 10:26	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323583	09/21/16 13:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	321727	09/07/16 10:25	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 09:12	BWS	TAL PEN

Client Sample ID: MW-108

Date Collected: 09/06/16 08:05
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	322475	09/13/16 21:19	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	322885	09/14/16 13:32	RJB	TAL PEN
Total/NA	Prep	7470A			321573	09/07/16 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322010	09/09/16 14:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322073	09/10/16 11:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	321897	09/08/16 10:26	LSS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Client Sample ID: MW-108

Date Collected: 09/06/16 08:05
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-3

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	323668	09/21/16 17:41	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	321727	09/07/16 10:25	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 08:05	BWS	TAL PEN

Client Sample ID: MW-306

Date Collected: 09/06/16 11:48
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	322475	09/13/16 21:37	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	322885	09/14/16 13:36	RJB	TAL PEN
Total/NA	Prep	7470A			321573	09/07/16 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322010	09/09/16 14:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322073	09/10/16 11:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	321897	09/08/16 10:26	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 17:48	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	321727	09/07/16 10:25	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 11:48	BWS	TAL PEN

Client Sample ID: MW-307

Date Collected: 09/06/16 14:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	322475	09/13/16 21:41	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322172	09/12/16 10:28	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	322885	09/14/16 13:41	RJB	TAL PEN
Total/NA	Prep	7470A			321573	09/07/16 08:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322010	09/09/16 14:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322073	09/10/16 11:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	321897	09/08/16 10:26	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 17:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	321727	09/07/16 10:26	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 14:20	BWS	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 321573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	7470A	
400-126757-2	MW-107	Total/NA	Water	7470A	
400-126757-3	MW-108	Total/NA	Water	7470A	
400-126757-4	MW-306	Total/NA	Water	7470A	
400-126757-5	MW-307	Total/NA	Water	7470A	
MB 400-321573/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-321573/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-126753-J-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-126753-J-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 322010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	7470A	321573
400-126757-2	MW-107	Total/NA	Water	7470A	321573
400-126757-3	MW-108	Total/NA	Water	7470A	321573
400-126757-4	MW-306	Total/NA	Water	7470A	321573
400-126757-5	MW-307	Total/NA	Water	7470A	321573
MB 400-321573/14-A	Method Blank	Total/NA	Water	7470A	321573
LCS 400-321573/15-A	Lab Control Sample	Total/NA	Water	7470A	321573
400-126753-J-1-B MS	Matrix Spike	Total/NA	Water	7470A	321573
400-126753-J-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	321573

Prep Batch: 322172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total Recoverable	Water	3005A	
400-126757-1 - RA	MW-100	Total Recoverable	Water	3005A	
400-126757-2	MW-107	Total Recoverable	Water	3005A	
400-126757-2 - RA	MW-107	Total Recoverable	Water	3005A	
400-126757-3 - RA	MW-108	Total Recoverable	Water	3005A	
400-126757-3	MW-108	Total Recoverable	Water	3005A	
400-126757-4 - RA	MW-306	Total Recoverable	Water	3005A	
400-126757-4	MW-306	Total Recoverable	Water	3005A	
400-126757-5 - RA	MW-307	Total Recoverable	Water	3005A	
400-126757-5	MW-307	Total Recoverable	Water	3005A	
MB 400-322172/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-322172/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126774-K-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-126774-K-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 322475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total Recoverable	Water	6020	322172
400-126757-2	MW-107	Total Recoverable	Water	6020	322172
400-126757-3	MW-108	Total Recoverable	Water	6020	322172
400-126757-4	MW-306	Total Recoverable	Water	6020	322172
400-126757-5	MW-307	Total Recoverable	Water	6020	322172
MB 400-322172/1-A ^5	Method Blank	Total Recoverable	Water	6020	322172
LCS 400-322172/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	322172
400-126774-K-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	322172
400-126774-K-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	322172

Metals (Continued)

Analysis Batch: 322885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1 - RA	MW-100	Total Recoverable	Water	6020	322172
400-126757-2 - RA	MW-107	Total Recoverable	Water	6020	322172
400-126757-3 - RA	MW-108	Total Recoverable	Water	6020	322172
400-126757-4 - RA	MW-306	Total Recoverable	Water	6020	322172
400-126757-5 - RA	MW-307	Total Recoverable	Water	6020	322172
MB 400-322172/1-A ^5	Method Blank	Total Recoverable	Water	6020	322172
LCS 400-322172/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	322172

General Chemistry

Analysis Batch: 321727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-126757-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-126757-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-126757-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-126757-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
MB 400-321727/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-321727/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-321727/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-126464-C-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-126464-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-126464-C-3 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 321897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-126757-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-126757-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-126757-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-126757-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
MB 400-321897/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-321897/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-321897/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-126757-4 MS	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-126757-4 MSD	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-126706-A-12 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	SM 2540C	
400-126757-2	MW-107	Total/NA	Water	SM 2540C	
400-126757-3	MW-108	Total/NA	Water	SM 2540C	
400-126757-4	MW-306	Total/NA	Water	SM 2540C	
400-126757-5	MW-307	Total/NA	Water	SM 2540C	
MB 400-322073/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322073/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126757-4 DU	MW-306	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 323583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	SM 4500 F C	
400-126757-2	MW-107	Total/NA	Water	SM 4500 F C	
MB 400-323583/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-323583/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-126524-B-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-126524-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-126524-B-17 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 323668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-3	MW-108	Total/NA	Water	SM 4500 F C	
400-126757-4	MW-306	Total/NA	Water	SM 4500 F C	
400-126757-5	MW-307	Total/NA	Water	SM 4500 F C	
MB 400-323668/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-323668/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-126757-3 MS	MW-108	Total/NA	Water	SM 4500 F C	
400-126757-3 MSD	MW-108	Total/NA	Water	SM 4500 F C	
400-126901-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 326069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	Field Sampling	
400-126757-2	MW-107	Total/NA	Water	Field Sampling	
400-126757-3	MW-108	Total/NA	Water	Field Sampling	
400-126757-4	MW-306	Total/NA	Water	Field Sampling	
400-126757-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-322172/1-A ^5
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/12/16 10:28	09/13/16 19:49	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 10:28	09/13/16 19:49	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 10:28	09/13/16 19:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/13/16 19:49	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/13/16 19:49	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/13/16 19:49	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 10:28	09/13/16 19:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/13/16 19:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 10:28	09/13/16 19:49	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/13/16 19:49	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/13/16 19:49	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/13/16 19:49	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 10:28	09/13/16 19:49	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/13/16 19:49	5

Lab Sample ID: MB 400-322172/1-A ^5
Matrix: Water
Analysis Batch: 322885

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/12/16 10:28	09/14/16 13:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 10:28	09/14/16 13:14	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 10:28	09/14/16 13:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:14	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 10:28	09/14/16 13:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 10:28	09/14/16 13:14	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 10:28	09/14/16 13:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 10:28	09/14/16 13:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 10:28	09/14/16 13:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 10:28	09/14/16 13:14	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 10:28	09/14/16 13:14	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 10:28	09/14/16 13:14	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 10:28	09/14/16 13:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 10:28	09/14/16 13:14	5

Lab Sample ID: LCS 400-322172/2-A ^1
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0549		mg/L		110	80 - 120
Arsenic	0.0500	0.0541		mg/L		108	80 - 120
Barium	0.0500	0.0515		mg/L		103	80 - 120
Beryllium	0.0500	0.0519		mg/L		104	80 - 120
Boron	0.100	0.113		mg/L		113	80 - 120
Cadmium	0.0500	0.0552		mg/L		110	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Chromium	0.0500	0.0514		mg/L		103	80 - 120

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

Lab Sample ID: LCS 400-322172/2-A ^1
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0517		mg/L		103	80 - 120
Lead	0.0500	0.0506		mg/L		101	80 - 120
Lithium	0.0500	0.0527		mg/L		105	80 - 120
Molybdenum	0.0500	0.0517		mg/L		103	80 - 120
Selenium	0.0500	0.0538		mg/L		108	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

Lab Sample ID: LCS 400-322172/2-A ^1
Matrix: Water
Analysis Batch: 322885

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0519		mg/L		104	80 - 120
Arsenic	0.0500	0.0548		mg/L		110	80 - 120
Barium	0.0500	0.0506		mg/L		101	80 - 120
Beryllium	0.0500	0.0533		mg/L		107	80 - 120
Boron	0.100	0.111		mg/L		111	80 - 120
Cadmium	0.0500	0.0525		mg/L		105	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120
Chromium	0.0500	0.0509		mg/L		102	80 - 120
Cobalt	0.0500	0.0524		mg/L		105	80 - 120
Lead	0.0500	0.0501		mg/L		100	80 - 120
Lithium	0.0500	0.0566		mg/L		113	80 - 120
Molybdenum	0.0500	0.0519		mg/L		104	80 - 120
Selenium	0.0500	0.0516		mg/L		103	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: 400-126774-K-1-B MS ^5
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0069		0.0500	0.0630		mg/L		112	75 - 125
Arsenic	0.064		0.0500	0.118		mg/L		108	75 - 125
Barium	0.78		0.0500	0.874	J3	mg/L		181	75 - 125
Beryllium	0.0022	I	0.0500	0.0445		mg/L		84	75 - 125
Cadmium	0.11		0.0500	0.161		mg/L		111	75 - 125
Chromium	0.27		0.0500	0.309		mg/L		87	75 - 125
Cobalt	0.019		0.0500	0.0658		mg/L		93	75 - 125
Lead	0.069		0.0500	0.112		mg/L		86	75 - 125
Lithium	0.19		0.0500	0.215	J3	mg/L		52	75 - 125
Molybdenum	0.088		0.0500	0.134		mg/L		91	75 - 125
Selenium	0.41		0.0500	0.457		mg/L		94	75 - 125
Thallium	0.0079		0.0100	0.0166		mg/L		87	75 - 125

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

Lab Sample ID: 400-126774-K-1-C MSD ^5
Matrix: Water
Analysis Batch: 322475

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 322172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0069		0.0500	0.0621		mg/L		111	75 - 125	1	20
Arsenic	0.064		0.0500	0.116		mg/L		104	75 - 125	2	20
Barium	0.78		0.0500	0.873	J3	mg/L		178	75 - 125	0	20
Beryllium	0.0022	I	0.0500	0.0429		mg/L		81	75 - 125	4	20
Cadmium	0.11		0.0500	0.160		mg/L		109	75 - 125	1	20
Chromium	0.27		0.0500	0.300	J3	mg/L		70	75 - 125	3	20
Cobalt	0.019		0.0500	0.0633		mg/L		88	75 - 125	4	20
Lead	0.069		0.0500	0.112		mg/L		85	75 - 125	1	20
Lithium	0.19		0.0500	0.206	J3	mg/L		33	75 - 125	4	20
Molybdenum	0.088		0.0500	0.131		mg/L		85	75 - 125	2	20
Selenium	0.41		0.0500	0.471		mg/L		123	75 - 125	3	20
Thallium	0.0079		0.0100	0.0167		mg/L		87	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-321573/14-A
Matrix: Water
Analysis Batch: 322010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321573

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000824	I	0.00020	0.000070	mg/L		09/07/16 08:53	09/09/16 13:43	1

Lab Sample ID: LCS 400-321573/15-A
Matrix: Water
Analysis Batch: 322010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321573

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.000983		mg/L		98	80 - 120		

Lab Sample ID: 400-126753-J-1-B MS
Matrix: Water
Analysis Batch: 322010

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 321573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.000070	U	0.00201	0.00186		mg/L		93	80 - 120		

Lab Sample ID: 400-126753-J-1-C MSD
Matrix: Water
Analysis Batch: 322010

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 321573

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	0.00194		mg/L		96	80 - 120	4	20

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

Lab Sample ID: MB 400-322073/1
Matrix: Water
Analysis Batch: 322073

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			09/10/16 11:45	1

Lab Sample ID: LCS 400-322073/2
Matrix: Water
Analysis Batch: 322073

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	290		mg/L		99	78 - 122

Lab Sample ID: 400-126757-4 DU
Matrix: Water
Analysis Batch: 322073

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	36		36.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-321897/6
Matrix: Water
Analysis Batch: 321897

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/08/16 07:51	1

Lab Sample ID: LCS 400-321897/7
Matrix: Water
Analysis Batch: 321897

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	29.2		mg/L		97	90 - 110

Lab Sample ID: MRL 400-321897/3
Matrix: Water
Analysis Batch: 321897

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	1.38	I	mg/L		69	50 - 150

Lab Sample ID: 400-126757-4 MS
Matrix: Water
Analysis Batch: 321897

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.4		10.0	16.0		mg/L		116	73 - 120

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

Lab Sample ID: 400-126757-4 MSD
Matrix: Water
Analysis Batch: 321897

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.4		10.0	15.9		mg/L		115	73 - 120	0	8

Lab Sample ID: 400-126706-A-12 DU
Matrix: Water
Analysis Batch: 321897

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	19		18.4		mg/L		0.9	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-323583/4
Matrix: Water
Analysis Batch: 323583

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			09/21/16 12:18	1

Lab Sample ID: LCS 400-323583/5
Matrix: Water
Analysis Batch: 323583

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	4.09		mg/L		102	90 - 110

Lab Sample ID: 400-126524-B-10 MS
Matrix: Water
Analysis Batch: 323583

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	0.970		mg/L		92	75 - 125

Lab Sample ID: 400-126524-B-10 MSD
Matrix: Water
Analysis Batch: 323583

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	0.990		mg/L		94	75 - 125	2	4

Lab Sample ID: 400-126524-B-17 DU
Matrix: Water
Analysis Batch: 323583

Client Sample ID: Duplicate
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 F C - Fluoride (Continued)

Lab Sample ID: MB 400-323668/3
Matrix: Water
Analysis Batch: 323668

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			09/21/16 17:32	1

Lab Sample ID: LCS 400-323668/4
Matrix: Water
Analysis Batch: 323668

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	4.00		mg/L		100	90 - 110

Lab Sample ID: 400-126757-3 MS
Matrix: Water
Analysis Batch: 323668

Client Sample ID: MW-108
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	1.01		mg/L		101	75 - 125

Lab Sample ID: 400-126757-3 MSD
Matrix: Water
Analysis Batch: 323668

Client Sample ID: MW-108
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	0.970		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-126901-A-5 DU
Matrix: Water
Analysis Batch: 323668

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 400-321727/6
Matrix: Water
Analysis Batch: 321727

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			09/07/16 09:46	1

Lab Sample ID: LCS 400-321727/7
Matrix: Water
Analysis Batch: 321727

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	16.0		mg/L		106	90 - 110

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

Lab Sample ID: MRL 400-321727/3
Matrix: Water
Analysis Batch: 321727

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	4.45	I	mg/L		89	50 - 150		

Lab Sample ID: 400-126464-C-4 MS
Matrix: Water
Analysis Batch: 321727

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	1.4	U	10.0	10.3		mg/L		103	77 - 128		

Lab Sample ID: 400-126464-C-4 MSD
Matrix: Water
Analysis Batch: 321727

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	1.4	U	10.0	10.2		mg/L		102	77 - 128	0	5

Lab Sample ID: 400-126464-C-3 DU
Matrix: Water
Analysis Batch: 321727

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	1.4	U	1.4	U	mg/L		NC	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 Sales	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Background	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 - 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-100	9/6/16	1020	G	Water			X	X	X	X		
MW-107	9/6/16	0912	G	Water			|	|	|	|		
MW-108	9/6/16	0805	G	Water			|	|	|	|		
MW-306	9/6/16	1148	G	Water			|	|	|	|		
MW-307	9/6/16	1420	G	Water			X	X	X	X		
												400-126757 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
1		9/6/16 1556	RDH		9/6/16 1556	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.9°C IR6

Page 26 of 28

10/10/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126757-1
SDG Number: Background

Login Number: 126757
List Number: 1
Creator: Hughes, Nicholas T

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	0.9°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126757-1
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126757-2
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
10/17/2016 4:59:52 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 11
Chronicle 12
QC Association 14
QC Sample Results 15
Chain of Custody 17
Receipt Checklists 18
Certification Summary 19

Job ID: 400-126757-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126757-2

RAD

Method(s) 9315: Radium-226 Prep Batch 160-271213: The barium carrier recovery is below the 40% QC limit for the method blank (9.97%). The LCS and LCSD spike and carrier recoveries are within control limits, which demonstrates acceptable sample preparation and instrument performance. As such, this was an apparent anomaly in the sample preparation isolated to the MB (see prep NCM 95071), which is not indicative of the entire batch. MW-100 (400-126757-1), MW-107 (400-126757-2), MW-108 (400-126757-3), MW-306 (400-126757-4), MW-307 (400-126757-5), (LCS 160-271213/2-A), (LCSD 160-271213/3-A) and (MB 160-271213/1-A)

Method(s) 9320: Radium-228 Prep Batch 160-271215: The barium carrier recovery is below the 40% QC limit for the method blank (9.97%). The LCS and LCSD spike and carrier recoveries are within control limits, which demonstrates acceptable sample preparation and instrument performance. As such, this was an apparent anomaly in the sample preparation isolated to the MB (see prep NCM 95072), which is not indicative of the entire batch. In addition, the low method blank carrier recovery is contributing to an elevated MDC (above the RL). The data have been qualified and reported. MW-100 (400-126757-1), MW-107 (400-126757-2), MW-108 (400-126757-3), MW-306 (400-126757-4), MW-307 (400-126757-5), (LCS 160-271215/2-A), (LCSD 160-271215/3-A) and (MB 160-271215/1-A)

Method(s) PrecSep_0: Radium-228 Prep Batch: 160-271215: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-100 (400-126757-1), MW-107 (400-126757-2), MW-108 (400-126757-3), MW-306 (400-126757-4) and MW-307 (400-126757-5). 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 160-271215: The barium carrier recovery is outside the lower control limit (40%) for the method blank associated with the following samples:MW-100 (400-126757-1), MW-107 (400-126757-2), MW-108 (400-126757-3), MW-306 (400-126757-4) and MW-307 (400-126757-5). Some of the barium sulfate pellet was lost during the out of in-growth process when decanting the supernate after the first precipitation.

Method(s) PrecSep-21: Radium-228 Prep Batch: 160-271213: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-100 (400-126757-1), MW-107 (400-126757-2), MW-108 (400-126757-3), MW-306 (400-126757-4) and MW-307 (400-126757-5). 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 160-271213: The barium carrier recovery is outside the lower control limit (40%) for the method blank associated with the following samples:MW-100 (400-126757-1), MW-107 (400-126757-2), MW-108 (400-126757-3), MW-306 (400-126757-4) and MW-307 (400-126757-5). Some of the barium sulfate pellet was lost during the out of in-growth process when decanting the supernate after the first precipitation.

Method Summary

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

TestAmerica Job ID: 400-126757-2
SDG: Background

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

Protocol References:

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

Sample Summary

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

TestAmerica Job ID: 400-126757-2
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126757-1	MW-100	Water	09/06/16 10:20	09/06/16 15:56
400-126757-2	MW-107	Water	09/06/16 09:12	09/06/16 15:56
400-126757-3	MW-108	Water	09/06/16 08:05	09/06/16 15:56
400-126757-4	MW-306	Water	09/06/16 11:48	09/06/16 15:56
400-126757-5	MW-307	Water	09/06/16 14:20	09/06/16 15:56

Client Sample ID: MW-100

Date Collected: 09/06/16 10:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-1

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	0.451		0.108	0.115	1.00	0.0993	pCi/L	09/22/16 17:15	10/14/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*40 - 110*	*09/22/16 17:15*	*10/14/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.618		0.318	0.323	1.00	0.475	pCi/L	09/22/16 17:48	10/08/16 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*1*
Y Carrier	*86.7*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*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	1.07		0.336	0.343	5.00	0.475	pCi/L		10/17/16 01:02	1

Client Sample ID: MW-107
Date Collected: 09/06/16 09:12
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-2
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	0.534		0.110	0.120	1.00	0.0825	pCi/L	09/22/16 17:15	10/14/16 11:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*40 - 110*	*09/22/16 17:15*	*10/14/16 11:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.531		0.332	0.335	1.00	0.510	pCi/L	09/22/16 17:48	10/08/16 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*1*
Y Carrier	*79.3*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*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	1.07		0.350	0.356	5.00	0.510	pCi/L		10/17/16 01:02	1

Client Sample ID: MW-108
Date Collected: 09/06/16 08:05
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-3
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	0.395		0.0949	0.101	1.00	0.0753	pCi/L	09/22/16 17:15	10/14/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*40 - 110*	*09/22/16 17:15*	*10/14/16 11:58*	*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		0.402	0.422	1.00	0.526	pCi/L	09/22/16 17:48	10/08/16 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*1*
Y Carrier	*82.2*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*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	1.80		0.413	0.434	5.00	0.526	pCi/L		10/17/16 01:02	1

Client Sample ID: MW-306

Date Collected: 09/06/16 11:48
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-4

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	0.176		0.0742	0.0759	1.00	0.0898	pCi/L	09/22/16 17:15	10/14/16 11:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*09/22/16 17:15*	*10/14/16 11:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.355	0.360	1.00	0.530	pCi/L	09/22/16 17:48	10/08/16 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*1*
Y Carrier	*74.0*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*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	0.831		0.363	0.368	5.00	0.530	pCi/L		10/17/16 01:02	1

Client Sample ID: MW-307
Date Collected: 09/06/16 14:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-5
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	**0.200**		0.0761	0.0782	1.00	0.0828	pCi/L	09/22/16 17:15	10/14/16 11:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*09/22/16 17:15*	*10/14/16 11:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.367	U	0.299	0.301	1.00	0.474	pCi/L	09/22/16 17:48	10/08/16 16:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*1*
Y Carrier	*84.5*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:25*	*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	**0.566**		0.309	0.311	5.00	0.474	pCi/L		10/17/16 01:02	1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.
G	The Sample MDC is greater than the requested RL.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-126757-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 09/06/16 10:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271213	09/22/16 17:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	274548	10/14/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271215	09/22/16 17:48	MCJ	TAL SL
Total/NA	Analysis	9320		1	273669	10/08/16 16:25	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274685	10/17/16 01:02	ALS	TAL SL

Client Sample ID: MW-107
Date Collected: 09/06/16 09:12
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271213	09/22/16 17:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	274548	10/14/16 11:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271215	09/22/16 17:48	MCJ	TAL SL
Total/NA	Analysis	9320		1	273669	10/08/16 16:25	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274685	10/17/16 01:02	ALS	TAL SL

Client Sample ID: MW-108
Date Collected: 09/06/16 08:05
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271213	09/22/16 17:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	274548	10/14/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271215	09/22/16 17:48	MCJ	TAL SL
Total/NA	Analysis	9320		1	273669	10/08/16 16:25	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274685	10/17/16 01:02	ALS	TAL SL

Client Sample ID: MW-306
Date Collected: 09/06/16 11:48
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271213	09/22/16 17:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	274548	10/14/16 11:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271215	09/22/16 17:48	MCJ	TAL SL
Total/NA	Analysis	9320		1	273669	10/08/16 16:25	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274685	10/17/16 01:02	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126757-2
SDG: Background

Client Sample ID: MW-307

Date Collected: 09/06/16 14:20
Date Received: 09/06/16 15:56

Lab Sample ID: 400-126757-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271213	09/22/16 17:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	274548	10/14/16 11:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271215	09/22/16 17:48	MCJ	TAL SL
Total/NA	Analysis	9320		1	273669	10/08/16 16:25	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	274685	10/17/16 01:02	ALS	TAL SL

Laboratory References:

TAL SL = 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 Plant Crist

TestAmerica Job ID: 400-126757-2
SDG: Background

Rad

Prep Batch: 271213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	PrecSep-21	
400-126757-2	MW-107	Total/NA	Water	PrecSep-21	
400-126757-3	MW-108	Total/NA	Water	PrecSep-21	
400-126757-4	MW-306	Total/NA	Water	PrecSep-21	
400-126757-5	MW-307	Total/NA	Water	PrecSep-21	
MB 160-271213/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-271213/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-271213/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 271215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126757-1	MW-100	Total/NA	Water	PrecSep_0	
400-126757-2	MW-107	Total/NA	Water	PrecSep_0	
400-126757-3	MW-108	Total/NA	Water	PrecSep_0	
400-126757-4	MW-306	Total/NA	Water	PrecSep_0	
400-126757-5	MW-307	Total/NA	Water	PrecSep_0	
MB 160-271215/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-271215/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-271215/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-271213/1-A
Matrix: Water
Analysis Batch: 274548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271213

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.06507	U	0.270	0.270	1.00	0.567	pCi/L	09/22/16 17:15	10/14/16 11:19	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.97*	*X*	*40 - 110*	*09/22/16 17:15*	*10/14/16 11:19*	*1*

Lab Sample ID: LCS 160-271213/2-A
Matrix: Water
Analysis Batch: 274548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271213

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	15.08		1.48	1.00	0.111	pCi/L	136	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.9*		*40 - 110*

Lab Sample ID: LCSD 160-271213/3-A
Matrix: Water
Analysis Batch: 274548

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 271213

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	14.74		1.44	1.00	0.0807	pCi/L	133	68 - 137	0.11	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*80.9*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-271215/1-A
Matrix: Water
Analysis Batch: 273669

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271215

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.141	U G	2.60	2.60	1.00	4.45	pCi/L	09/22/16 17:48	10/08/16 16:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.97*	*X*	*40 - 110*	*09/22/16 17:48*	*10/08/16 16:23*	*1*
Y Carrier	*77.8*		*40 - 110*	*09/22/16 17:48*	*10/08/16 16:23*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-271215/2-A
Matrix: Water
Analysis Batch: 273669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271215

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.5	19.49		2.14	1.00	0.628	pCi/L	135	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*74.9*		*40 - 110*
Y Carrier	*78.1*		*40 - 110*

Lab Sample ID: LCSD 160-271215/3-A
Matrix: Water
Analysis Batch: 273669

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 271215

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.5	20.15		2.17	1.00	0.534	pCi/L	139	56 - 140	0.15	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*80.9*		*40 - 110*
Y Carrier	*78.5*		*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 Sales	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Background	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, 4600_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-100	9/6/16	1020	G	Water			X	X	X	X		
MW-107	9/6/16	0912	G	Water								
MW-108	9/6/16	0805	G	Water								
MW-306	9/6/16	1148	G	Water								
MW-307	9/6/16	1420	G	Water			X	X	X	X		

400-126757 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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	9/6/16 1556	RDH		9/6/16 1556	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: 0.9°C IR6

Page 17 of 20

10/17/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126757-2
SDG Number: Background

Login Number: 126757
List Number: 1
Creator: Hughes, Nicholas T

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	0.9°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126757-2
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-126757-2
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126901-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
10/10/2016 6:20:31 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 21
Chronicle 22
QC Association 26
QC Sample Results 30
Chain of Custody 36
Receipt Checklists 37
Certification Summary 38

Job ID: 400-126901-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126901-1

Metals
Method(s) 6020: The continuing calibration verification (CCV) associated with batch 323279 recovered above the upper control limit for Boron. The samples associated with this CCV were less than the Reporting Limit for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-101 (400-126901-1), MW-102 (400-126901-2), MW-106 (400-126901-6) and DUPLICATE-01 (400-126901-9).

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-126901-4) and MW-110 (400-126901-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 322020 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.

Detection Summary

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-126901-1

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	0.45		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00042	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0037	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.43				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-126901-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-126901-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.070		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00044	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0031		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - DL	0.37		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	41		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	5.01				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-126901-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.012		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00078	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	55		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0019	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-126901-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.018		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0024		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.033		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0099		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00028	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	12		2.0	0.84	mg/L	200		6020	Total Recoverable
Mercury	0.0016		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1100		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	140		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.33		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	550		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.06				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-126901-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0032		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	59		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0029		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0040	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00026	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - DL	0.53		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	270		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	33		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	18		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.03				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-126901-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.022	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.57		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00061	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0073		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-106 (Continued) — Lab Sample ID: 400-126901-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.22				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-126901-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0049		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0049	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Boron - RA	0.073		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.72				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-126901-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.051		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	20		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0047		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0069		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0034		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00023	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.8		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.0067		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	440		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	80		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	200		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.86				SU	1		Field Sampling	Total/NA

Client Sample ID: DUPLICATE-01 — Lab Sample ID: 400-126901-9

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	0.44		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.43				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: EQ BLANK-01 — Lab Sample ID: 400-126901-10

No Detections.

Client Sample ID: FIELD BLANK-01 — Lab Sample ID: 400-126901-11

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 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

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 Plant Crist

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126901-1	MW-101	Water	09/06/16 16:20	09/08/16 09:08
400-126901-2	MW-102	Water	09/06/16 17:45	09/08/16 09:08
400-126901-3	MW-103	Water	09/07/16 11:56	09/08/16 09:08
400-126901-4	MW-104	Water	09/07/16 12:25	09/08/16 09:08
400-126901-5	MW-105	Water	09/07/16 10:48	09/08/16 09:08
400-126901-6	MW-106	Water	09/07/16 07:56	09/08/16 09:08
400-126901-7	MW-109	Water	09/07/16 10:35	09/08/16 09:08
400-126901-8	MW-110	Water	09/07/16 09:08	09/08/16 09:08
400-126901-9	DUPLICATE-01	Water	09/06/16 15:20	09/08/16 09:08
400-126901-10	EQ BLANK-01	Water	09/07/16 11:00	09/08/16 09:08
400-126901-11	FIELD BLANK-01	Water	09/07/16 08:00	09/08/16 09:08

Client Sample Results

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-101

Date Collected: 09/06/16 16:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-1

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		09/12/16 13:22	09/19/16 18:25	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:25	5
Barium	**0.011**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:25	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 18:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:25	5
Calcium	**0.45**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:25	5
Cobalt	**0.00042**	**I**	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:25	5
Lithium	**0.0037**	**I**	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:25	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:25	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:25	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		09/13/16 10:15	09/14/16 13:42	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			09/10/16 12:16	1
Chloride	**4.3**		2.0	0.60	mg/L			09/09/16 11:36	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 17:53	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/09/16 10:02	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.43**				SU			09/06/16 16:20	1

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-102
Date Collected: 09/06/16 17:45
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-2
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		09/12/16 13:22	09/19/16 18:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:29	5
Barium	**0.012**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:29	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 18:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:29	5
Calcium	**1.0**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:29	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:29	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:29	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:29	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:29	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:29	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		09/13/16 10:15	09/14/16 13:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**40**		5.0	3.4	mg/L			09/10/16 12:16	1
Chloride	**4.8**		2.0	0.60	mg/L			09/09/16 11:36	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 17:55	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/09/16 10:02	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.84**				SU			09/06/16 17:45	1

Client Sample Results

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-103
Date Collected: 09/07/16 11:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-3
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		09/12/16 13:22	09/19/16 18:34	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:34	5
Barium	**0.070**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:34	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:34	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:34	5
Calcium	**4.2**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:34	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:34	5
Cobalt	**0.00044**	**I**	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:34	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:34	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:34	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:34	5
Selenium	**0.0031**		0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:34	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:34	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.37**		0.25	0.11	mg/L		09/12/16 13:22	09/26/16 13:11	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		09/13/16 10:15	09/14/16 13:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**82**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**7.4**		2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:02	1
Sulfate	**41**		10	2.8	mg/L			09/12/16 14:31	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.01**				SU			09/07/16 11:56	1

Client Sample ID: MW-104

Date Collected: 09/07/16 12:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-4

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		09/12/16 13:22	09/19/16 18:38	5
Arsenic	**0.012**		0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:38	5
Barium	**0.027**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:38	5
Beryllium	**0.00078**	**I**	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:38	5
Calcium	**55**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:38	5
Chromium	**0.0019**	**I**	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:38	5
Cobalt	**0.018**		0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:38	5
Lead	**0.0024**		0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:38	5
Lithium	**0.033**		0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:38	5
Selenium	**0.0099**		0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:38	5
Thallium	**0.00028**	**I**	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:38	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**12**		2.0	0.84	mg/L		09/12/16 13:22	09/26/16 13:16	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0016**		0.00020	0.000070	mg/L		09/13/16 10:15	09/14/16 13:46	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**140**		20	6.0	mg/L			09/09/16 12:07	10
Fluoride	**0.33**		0.10	0.032	mg/L			09/21/16 18:05	1
Sulfate	**550**		100	28	mg/L			09/12/16 14:55	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.06**				SU			09/07/16 12:25	1

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-105

Date Collected: 09/07/16 10:48
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-5

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		09/12/16 13:22	09/19/16 18:43	5
Arsenic	**0.0032**		0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:43	5
Barium	**0.043**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:43	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:43	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:43	5
Calcium	**59**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:43	5
Chromium	**0.0029**		0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:43	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:43	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:43	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:43	5
Molybdenum	**0.0040**	**I**	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:43	5
Selenium	**0.00026**	**I**	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:43	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:43	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.53**		0.25	0.11	mg/L		09/12/16 13:22	09/26/16 13:20	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		09/13/16 10:15	09/14/16 13:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**270**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**33**		2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:13	1
Sulfate	**18**		5.0	1.4	mg/L			09/12/16 14:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.03**				SU			09/07/16 10:48	1

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: MW-106

Date Collected: 09/07/16 07:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-6

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		09/12/16 13:22	09/19/16 18:47	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:47	5
Barium	**0.012**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:47	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:47	5
Boron	**0.022**	**I**	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 18:47	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:47	5
Calcium	**0.57**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:47	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:47	5
Cobalt	**0.00061**	**I**	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:47	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:47	5
Lithium	**0.0073**		0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:47	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:47	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:47	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:47	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		09/13/16 10:15	09/14/16 13:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**3.3**		2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:18	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 14:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.22**				SU			09/07/16 07:56	1

Client Sample ID: MW-109

Date Collected: 09/07/16 10:35
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-7

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		09/12/16 13:22	09/19/16 18:52	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:52	5
Barium	**0.023**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:52	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:52	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:52	5
Calcium	**3.1**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:52	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:52	5
Cobalt	**0.0049**		0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:52	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:52	5
Lithium	**0.0049**	**I**	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:52	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:52	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:52	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:52	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.073**		0.050	0.021	mg/L		09/12/16 13:22	09/26/16 13:25	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		09/13/16 10:15	09/14/16 14:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**4.8**		2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:21	1
Sulfate	**15**		5.0	1.4	mg/L			09/12/16 14:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.72**				SU			09/07/16 10:35	1

Client Sample ID: MW-110

Date Collected: 09/07/16 09:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-8

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		09/12/16 13:22	09/19/16 18:56	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:56	5
Barium	**0.051**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:56	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:56	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:56	5
Calcium	**20**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:56	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:56	5
Cobalt	**0.0047**		0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:56	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:56	5
Lithium	**0.0069**		0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:56	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:56	5
Selenium	**0.0034**		0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:56	5
Thallium	**0.00023**	**I**	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:56	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.8**		1.0	0.42	mg/L		09/12/16 13:22	09/26/16 13:43	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0067**		0.00020	0.000070	mg/L		09/13/16 10:15	09/14/16 14:26	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**80**		10	3.0	mg/L			09/09/16 12:07	5
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:24	1
Sulfate	**200**		50	14	mg/L			09/12/16 14:31	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.86**				SU			09/07/16 09:08	1

Client Sample ID: DUPLICATE-01

Date Collected: 09/06/16 15:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-9

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		09/12/16 13:23	09/19/16 19:01	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:23	09/19/16 19:01	5
Barium	**0.011**		0.0025	0.00049	mg/L		09/12/16 13:23	09/19/16 19:01	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:23	09/19/16 19:01	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:23	09/19/16 19:01	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:23	09/19/16 19:01	5
Calcium	**0.44**		0.25	0.13	mg/L		09/12/16 13:23	09/19/16 19:01	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:23	09/19/16 19:01	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:23	09/19/16 19:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:23	09/19/16 19:01	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:23	09/19/16 19:01	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:23	09/19/16 19:01	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:23	09/19/16 19:01	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:23	09/19/16 19:01	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		09/13/16 10:15	09/14/16 14:28	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			09/10/16 12:16	1
Chloride	**4.2**		2.0	0.60	mg/L			09/09/16 11:36	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 17:59	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 14:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.43**				SU			09/06/16 15:20	1

Client Sample ID: EQ BLANK-01

Date Collected: 09/07/16 11:00
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-10

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		09/12/16 13:23	09/19/16 16:49	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:23	09/19/16 16:49	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 13:23	09/19/16 16:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:23	09/19/16 16:49	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:23	09/19/16 16:49	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:23	09/19/16 16:49	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 13:23	09/19/16 16:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:23	09/19/16 16:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:23	09/19/16 16:49	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:23	09/19/16 16:49	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:23	09/19/16 16:49	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:23	09/19/16 16:49	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:23	09/19/16 16:49	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:23	09/19/16 16:49	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		09/13/16 10:15	09/14/16 14:29	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			09/13/16 12:35	1
Chloride	0.60	U	2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:27	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 14:07	1

Client Sample ID: FIELD BLANK-01

Date Collected: 09/07/16 08:00
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-11

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		09/12/16 13:23	09/19/16 16:53	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:23	09/19/16 16:53	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 13:23	09/19/16 16:53	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:23	09/19/16 16:53	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:23	09/19/16 16:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:23	09/19/16 16:53	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 13:23	09/19/16 16:53	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:23	09/19/16 16:53	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:23	09/19/16 16:53	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:23	09/19/16 16:53	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:23	09/19/16 16:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:23	09/19/16 16:53	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:23	09/19/16 16:53	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:23	09/19/16 16:53	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		09/13/16 10:15	09/14/16 14:31	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			09/13/16 12:35	1
Chloride	0.60	U	2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:29	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 15:49	1

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-101
Date Collected: 09/06/16 16:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:25	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 13:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322068	09/10/16 12:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:36	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 17:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322020	09/09/16 10:02	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 16:20	BWS	TAL PEN

Client Sample ID: MW-102
Date Collected: 09/06/16 17:45
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:29	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 13:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322068	09/10/16 12:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:36	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 17:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322020	09/09/16 10:02	LSS	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 17:45	BWS	TAL PEN

Client Sample ID: MW-103
Date Collected: 09/07/16 11:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:34	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	324199	09/26/16 13:11	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 13:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:02	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	322257	09/12/16 14:31	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/07/16 11:56	BWS	TAL PEN

Client Sample ID: MW-104

Date Collected: 09/07/16 12:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:38	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	324199	09/26/16 13:16	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	322019	09/09/16 12:07	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:05	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	322257	09/12/16 14:55	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/07/16 12:25	BWS	TAL PEN

Client Sample ID: MW-105

Date Collected: 09/07/16 10:48
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:43	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	324199	09/26/16 13:20	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 14:04	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/07/16 10:48	BWS	TAL PEN

Client Sample ID: MW-106

Date Collected: 09/07/16 07:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:47	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 13:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 14:07	SEH	TAL PEN

Client Sample ID: MW-106
Date Collected: 09/07/16 07:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	326069	09/07/16 07:56	BWS	TAL PEN

Client Sample ID: MW-109
Date Collected: 09/07/16 10:35
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:52	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	324199	09/26/16 13:25	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 14:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 14:07	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/07/16 10:35	BWS	TAL PEN

Client Sample ID: MW-110
Date Collected: 09/07/16 09:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:56	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	324199	09/26/16 13:43	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 14:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	322019	09/09/16 12:07	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:24	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	322257	09/12/16 14:31	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/07/16 09:08	BWS	TAL PEN

Client Sample ID: DUPLICATE-01
Date Collected: 09/06/16 15:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:23	RJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Client Sample ID: DUPLICATE-01

Lab Sample ID: 400-126901-9

Date Collected: 09/06/16 15:20

Matrix: Water

Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	323279	09/19/16 19:01	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 14:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322068	09/10/16 12:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:36	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 17:59	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 14:04	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326069	09/06/16 15:20	BWS	TAL PEN

Client Sample ID: EQ BLANK-01

Lab Sample ID: 400-126901-10

Date Collected: 09/07/16 11:00

Matrix: Water

Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:23	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 16:49	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 14:29	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:27	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 14:07	SEH	TAL PEN

Client Sample ID: FIELD BLANK-01

Lab Sample ID: 400-126901-11

Date Collected: 09/07/16 08:00

Matrix: Water

Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:23	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 16:53	RJB	TAL PEN
Total/NA	Prep	7470A			322365	09/13/16 10:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322585	09/14/16 14:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 15:49	SEH	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 322228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total Recoverable	Water	3005A	
400-126901-2	MW-102	Total Recoverable	Water	3005A	
400-126901-3 - DL	MW-103	Total Recoverable	Water	3005A	
400-126901-3	MW-103	Total Recoverable	Water	3005A	
400-126901-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-126901-4	MW-104	Total Recoverable	Water	3005A	
400-126901-5	MW-105	Total Recoverable	Water	3005A	
400-126901-5 - DL	MW-105	Total Recoverable	Water	3005A	
400-126901-6	MW-106	Total Recoverable	Water	3005A	
400-126901-7	MW-109	Total Recoverable	Water	3005A	
400-126901-7 - RA	MW-109	Total Recoverable	Water	3005A	
400-126901-8	MW-110	Total Recoverable	Water	3005A	
400-126901-8 - DL	MW-110	Total Recoverable	Water	3005A	
400-126901-9	DUPLICATE-01	Total Recoverable	Water	3005A	
400-126901-10	EQ BLANK-01	Total Recoverable	Water	3005A	
400-126901-11	FIELD BLANK-01	Total Recoverable	Water	3005A	
MB 400-322228/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-322228/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126904-B-2-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-126904-B-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 322365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	7470A	
400-126901-2	MW-102	Total/NA	Water	7470A	
400-126901-3	MW-103	Total/NA	Water	7470A	
400-126901-4	MW-104	Total/NA	Water	7470A	
400-126901-5	MW-105	Total/NA	Water	7470A	
400-126901-6	MW-106	Total/NA	Water	7470A	
400-126901-7	MW-109	Total/NA	Water	7470A	
400-126901-8	MW-110	Total/NA	Water	7470A	
400-126901-9	DUPLICATE-01	Total/NA	Water	7470A	
400-126901-10	EQ BLANK-01	Total/NA	Water	7470A	
400-126901-11	FIELD BLANK-01	Total/NA	Water	7470A	
MB 400-322365/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-322365/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-126901-7 MS	MW-109	Total/NA	Water	7470A	
400-126901-7 MSD	MW-109	Total/NA	Water	7470A	

Analysis Batch: 322585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	7470A	322365
400-126901-2	MW-102	Total/NA	Water	7470A	322365
400-126901-3	MW-103	Total/NA	Water	7470A	322365
400-126901-4	MW-104	Total/NA	Water	7470A	322365
400-126901-5	MW-105	Total/NA	Water	7470A	322365
400-126901-6	MW-106	Total/NA	Water	7470A	322365
400-126901-7	MW-109	Total/NA	Water	7470A	322365
400-126901-8	MW-110	Total/NA	Water	7470A	322365
400-126901-9	DUPLICATE-01	Total/NA	Water	7470A	322365
400-126901-10	EQ BLANK-01	Total/NA	Water	7470A	322365

Metals (Continued)

Analysis Batch: 322585 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-11	FIELD BLANK-01	Total/NA	Water	7470A	322365
MB 400-322365/14-A	Method Blank	Total/NA	Water	7470A	322365
LCS 400-322365/15-A	Lab Control Sample	Total/NA	Water	7470A	322365
400-126901-7 MS	MW-109	Total/NA	Water	7470A	322365
400-126901-7 MSD	MW-109	Total/NA	Water	7470A	322365

Analysis Batch: 323279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total Recoverable	Water	6020	322228
400-126901-2	MW-102	Total Recoverable	Water	6020	322228
400-126901-3	MW-103	Total Recoverable	Water	6020	322228
400-126901-4	MW-104	Total Recoverable	Water	6020	322228
400-126901-5	MW-105	Total Recoverable	Water	6020	322228
400-126901-6	MW-106	Total Recoverable	Water	6020	322228
400-126901-7	MW-109	Total Recoverable	Water	6020	322228
400-126901-8	MW-110	Total Recoverable	Water	6020	322228
400-126901-9	DUPLICATE-01	Total Recoverable	Water	6020	322228
400-126901-10	EQ BLANK-01	Total Recoverable	Water	6020	322228
400-126901-11	FIELD BLANK-01	Total Recoverable	Water	6020	322228
MB 400-322228/1-A ^5	Method Blank	Total Recoverable	Water	6020	322228
LCS 400-322228/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	322228
400-126904-B-2-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	322228
400-126904-B-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	322228

Analysis Batch: 324199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-3 - DL	MW-103	Total Recoverable	Water	6020	322228
400-126901-4 - DL	MW-104	Total Recoverable	Water	6020	322228
400-126901-5 - DL	MW-105	Total Recoverable	Water	6020	322228
400-126901-7 - RA	MW-109	Total Recoverable	Water	6020	322228
400-126901-8 - DL	MW-110	Total Recoverable	Water	6020	322228

General Chemistry

Analysis Batch: 322019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-126901-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-126901-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-126901-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-126901-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-126901-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-126901-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-126901-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-126901-9	DUPLICATE-01	Total/NA	Water	SM 4500 Cl- E	
400-126901-10	EQ BLANK-01	Total/NA	Water	SM 4500 Cl- E	
400-126901-11	FIELD BLANK-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-322019/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-322019/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-322019/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 322019 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126832-I-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-126832-I-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-126901-9 DU	DUPLICATE-01	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-126901-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
MB 400-322020/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-322020/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCSD 400-322020/52	Lab Control Sample Dup	Total/NA	Water	SM 4500 SO4 E	
MRL 400-322020/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-126916-G-5 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-126916-G-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-126840-A-1 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 322068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	SM 2540C	
400-126901-2	MW-102	Total/NA	Water	SM 2540C	
400-126901-9	DUPLICATE-01	Total/NA	Water	SM 2540C	
LCS 400-322068/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126901-1 DU	MW-101	Total/NA	Water	SM 2540C	

Analysis Batch: 322257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-126901-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-126901-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-126901-6	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-126901-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-126901-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-126901-9	DUPLICATE-01	Total/NA	Water	SM 4500 SO4 E	
400-126901-10	EQ BLANK-01	Total/NA	Water	SM 4500 SO4 E	
400-126901-11	FIELD BLANK-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-322257/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-322257/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-322257/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-126069-K-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-126069-K-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 322366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-3	MW-103	Total/NA	Water	SM 2540C	
400-126901-4	MW-104	Total/NA	Water	SM 2540C	
400-126901-5	MW-105	Total/NA	Water	SM 2540C	
400-126901-6	MW-106	Total/NA	Water	SM 2540C	
400-126901-7	MW-109	Total/NA	Water	SM 2540C	
400-126901-8	MW-110	Total/NA	Water	SM 2540C	
400-126901-10	EQ BLANK-01	Total/NA	Water	SM 2540C	
400-126901-11	FIELD BLANK-01	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 322366 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322366/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322366/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126901-3 DU	MW-103	Total/NA	Water	SM 2540C	

Analysis Batch: 323668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	SM 4500 F C	
400-126901-2	MW-102	Total/NA	Water	SM 4500 F C	
400-126901-3	MW-103	Total/NA	Water	SM 4500 F C	
400-126901-4	MW-104	Total/NA	Water	SM 4500 F C	
400-126901-5	MW-105	Total/NA	Water	SM 4500 F C	
400-126901-6	MW-106	Total/NA	Water	SM 4500 F C	
400-126901-7	MW-109	Total/NA	Water	SM 4500 F C	
400-126901-8	MW-110	Total/NA	Water	SM 4500 F C	
400-126901-9	DUPLICATE-01	Total/NA	Water	SM 4500 F C	
400-126901-10	EQ BLANK-01	Total/NA	Water	SM 4500 F C	
400-126901-11	FIELD BLANK-01	Total/NA	Water	SM 4500 F C	
MB 400-323668/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-323668/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-126757-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-126757-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-126901-5 DU	MW-105	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 326069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	Field Sampling	
400-126901-2	MW-102	Total/NA	Water	Field Sampling	
400-126901-3	MW-103	Total/NA	Water	Field Sampling	
400-126901-4	MW-104	Total/NA	Water	Field Sampling	
400-126901-5	MW-105	Total/NA	Water	Field Sampling	
400-126901-6	MW-106	Total/NA	Water	Field Sampling	
400-126901-7	MW-109	Total/NA	Water	Field Sampling	
400-126901-8	MW-110	Total/NA	Water	Field Sampling	
400-126901-9	DUPLICATE-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-322228/1-A ^5
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/12/16 13:22	09/19/16 16:31	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 16:31	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 16:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:31	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 16:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:31	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 13:22	09/19/16 16:31	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 16:31	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 16:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 16:31	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 16:31	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 16:31	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 16:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 16:31	5

Lab Sample ID: LCS 400-322228/2-A ^1
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0513		mg/L		103	80 - 120
Arsenic	0.0500	0.0529		mg/L		106	80 - 120
Barium	0.0500	0.0524		mg/L		105	80 - 120
Beryllium	0.0500	0.0510		mg/L		102	80 - 120
Boron	0.100	0.108		mg/L		108	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	5.00	5.08		mg/L		102	80 - 120
Chromium	0.0500	0.0508		mg/L		102	80 - 120
Cobalt	0.0500	0.0537		mg/L		107	80 - 120
Lead	0.0500	0.0527		mg/L		105	80 - 120
Lithium	0.0500	0.0541		mg/L		108	80 - 120
Molybdenum	0.0500	0.0519		mg/L		104	80 - 120
Selenium	0.0500	0.0509		mg/L		102	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-126904-B-2-B MS ^5
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0565		mg/L		113	75 - 125
Arsenic	0.00046	U	0.0500	0.0552		mg/L		110	75 - 125
Barium	0.030		0.0500	0.0852		mg/L		110	75 - 125
Beryllium	0.00034	U	0.0500	0.0531		mg/L		106	75 - 125
Cadmium	0.00045	I	0.0500	0.0507		mg/L		101	75 - 125
Calcium	68		5.00	71.9		mg/L		77	75 - 125
Chromium	0.0011	U	0.0500	0.0506		mg/L		101	75 - 125
Cobalt	0.00040	U	0.0500	0.0543		mg/L		109	75 - 125

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

Lab Sample ID: 400-126904-B-2-B MS ^5
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.00035	U	0.0500	0.0548		mg/L		110	75 - 125
Lithium	0.022		0.0500	0.0818		mg/L		121	75 - 125
Selenium	0.0065		0.0500	0.0574		mg/L		102	75 - 125
Thallium	0.00015	I	0.0100	0.0105		mg/L		104	75 - 125

Lab Sample ID: 400-126904-B-2-C MSD ^5
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 322228

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	0.0546		mg/L		109	75 - 125	3	20
Arsenic	0.00046	U	0.0500	0.0559		mg/L		112	75 - 125	1	20
Barium	0.030		0.0500	0.0846		mg/L		109	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0482		mg/L		96	75 - 125	10	20
Cadmium	0.00045	I	0.0500	0.0524		mg/L		104	75 - 125	3	20
Calcium	68		5.00	73.9		mg/L		117	75 - 125	3	20
Chromium	0.0011	U	0.0500	0.0514		mg/L		103	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0552		mg/L		110	75 - 125	2	20
Lead	0.00035	U	0.0500	0.0544		mg/L		109	75 - 125	1	20
Lithium	0.022		0.0500	0.0726		mg/L		102	75 - 125	12	20
Selenium	0.0065		0.0500	0.0586		mg/L		104	75 - 125	2	20
Thallium	0.00015	I	0.0100	0.0103		mg/L		102	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-322365/14-A
Matrix: Water
Analysis Batch: 322585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322365

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		09/13/16 10:12	09/14/16 13:40	1

Lab Sample ID: LCS 400-322365/15-A
Matrix: Water
Analysis Batch: 322585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322365

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

Lab Sample ID: 400-126901-7 MS
Matrix: Water
Analysis Batch: 322585

Client Sample ID: MW-109
Prep Type: Total/NA
Prep Batch: 322365

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00230		mg/L		114	80 - 120

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

Lab Sample ID: 400-126901-7 MSD
Matrix: Water
Analysis Batch: 322585

Client Sample ID: MW-109
Prep Type: Total/NA
Prep Batch: 322365

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	0.00215		mg/L		107	80 - 120	7	20

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

Lab Sample ID: LCS 400-322068/2
Matrix: Water
Analysis Batch: 322068

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-126901-1 DU
Matrix: Water
Analysis Batch: 322068

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	36		36.0		mg/L		0	5

Lab Sample ID: MB 400-322366/1
Matrix: Water
Analysis Batch: 322366

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			09/13/16 12:35	1

Lab Sample ID: LCS 400-322366/2
Matrix: Water
Analysis Batch: 322366

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

Lab Sample ID: 400-126901-3 DU
Matrix: Water
Analysis Batch: 322366

Client Sample ID: MW-103
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	82		84.0		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-322019/6
Matrix: Water
Analysis Batch: 322019

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/09/16 08:58	1

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

Lab Sample ID: LCS 400-322019/7
Matrix: Water
Analysis Batch: 322019

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	28.9		mg/L		96	90 - 110

Lab Sample ID: MRL 400-322019/3
Matrix: Water
Analysis Batch: 322019

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	1.51	I	mg/L		76	50 - 150

Lab Sample ID: 400-126832-I-1 MS
Matrix: Water
Analysis Batch: 322019

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	6.7		10.0	18.2		mg/L		114	73 - 120

Lab Sample ID: 400-126832-I-1 MSD
Matrix: Water
Analysis Batch: 322019

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	6.7		10.0	18.1		mg/L		114	73 - 120	0	8

Lab Sample ID: 400-126901-9 DU
Matrix: Water
Analysis Batch: 322019

Client Sample ID: DUPLICATE-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	4.2		4.21		mg/L		0.7	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-323668/3
Matrix: Water
Analysis Batch: 323668

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			09/21/16 17:32	1

Lab Sample ID: LCS 400-323668/4
Matrix: Water
Analysis Batch: 323668

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	4.00		mg/L		100	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-126757-A-3 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 323668

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.032	U	1.00	1.01		mg/L		101	75 - 125		

Lab Sample ID: 400-126757-A-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 323668

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	0.970		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-126901-5 DU — **Client Sample ID: MW-105**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 323668

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 400-322020/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322020

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			09/09/16 09:00	1

Lab Sample ID: LCS 400-322020/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322020

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	13.6		mg/L		91	90 - 110		

Lab Sample ID: MRL 400-322020/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322020

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.20	I	mg/L		84	50 - 150		

Lab Sample ID: 400-126916-G-5 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322020

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	7.09	J3	mg/L		71	77 - 128		

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

Lab Sample ID: 400-126916-G-5 MSD
Matrix: Water
Analysis Batch: 322020

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	1.4	U	10.0	7.36	J3	mg/L		74	77 - 128	4	5

Lab Sample ID: 400-126840-A-1 DU
Matrix: Water
Analysis Batch: 322020

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	11		11.1		mg/L		0.2	5

Lab Sample ID: MB 400-322257/6
Matrix: Water
Analysis Batch: 322257

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			09/12/16 13:29	1

Lab Sample ID: LCS 400-322257/7
Matrix: Water
Analysis Batch: 322257

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		100	90 - 110

Lab Sample ID: MRL 400-322257/3
Matrix: Water
Analysis Batch: 322257

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	4.33	I	mg/L		87	50 - 150

Lab Sample ID: 400-126069-K-3 MS
Matrix: Water
Analysis Batch: 322257

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	1.5	I	10.0	11.2		mg/L		97	77 - 128

Lab Sample ID: 400-126069-K-3 MSD
Matrix: Water
Analysis Batch: 322257

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	1.5	I	10.0	12.5	J3	mg/L		110	77 - 128	11	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 Surles	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: 1-1
Company: Gulf Power Company		Analysis Requested		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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Landfill 1	SSOW#:			

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:

400-126901 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-101	9/6/16	1620	G	Water			X	X	X	X		
MW-102	9/6/16	1745	G	Water								
MW-103	9/6/16	1156	G	Water								
MW-104	9/7/16	1225	G	Water								
MW-105	9/7/16	1048	G	Water								
MW-106	9/7/16	0756	G	Water								
MW-109	9/7/16	1035	G	Water								
MW-110	9/7/16	0908	G	Water			X	X	X	X		
Duplicate -01	9/6/16	1520	G	water			X	X	X	X		
EQ Blank -01	9/7/16	1100	G	water			X	X	X	X		
Field Blank-01	9/7/16	0800	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
1		9/8/16 0908	RDH		9-8-16 0908	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0°C, 1.0°C, 1.7°C IR6

10/10/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126901-1
SDG Number: Landfill 1

Login Number: 126901
List Number: 1
Creator: Perez, Trina M

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	0.0°C,1.0°C, 1.7°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126901-1
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126901-2
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/23/2016 6:29:01 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 26
Receipt Checklists 27
Certification Summary 28

Job ID: 400-126901-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126901-2

RAD

Method(s) 9320: Radium-228 Prep Batch 160-272032: The method blank (MB) has radium-226 activity above detection goal. The following associated samples are non-detect for the contaminant, therefore re-analysis is not required. The data have been qualified and reported. MW-101 (400-126901-1), MW-106 (400-126901-6), DUPLICATE-01 (400-126901-9), (LCS 160-272032/2-A), (LCSD 160-272032/3-A) and (MB 160-272032/1-A).

Method(s) PrecSep_0: Radium-228 Prep Batch 160-272032: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-101 (400-126901-1), MW-102 (400-126901-2), MW-103 (400-126901-3), MW-104 (400-126901-4), MW-105 (400-126901-5), MW-106 (400-126901-6), MW-109 (400-126901-7), MW-110 (400-126901-8) and DUPLICATE-01 (400-126901-9). 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 160-272045: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: EQ BLANK-01 (400-126901-10) and FIELD BLANK-01 (400-126901-11). 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 160-274657: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-102 (400-126901-2), MW-103 (400-126901-3), MW-104 (400-126901-4), MW-105 (400-126901-5), MW-109 (400-126901-7) and MW-110 (400-126901-8). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead. The samples were also prepared at a reduced aliquot due to limited volume from re-analysis (see NCM 160-95349).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-272009: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-101 (400-126901-1), MW-102 (400-126901-2), MW-103 (400-126901-3), MW-104 (400-126901-4), MW-105 (400-126901-5), MW-106 (400-126901-6), MW-109 (400-126901-7), MW-110 (400-126901-8) and DUPLICATE-01 (400-126901-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Lot 400-127445 was prepared at a reduced aliquot due to limited volume.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-272039: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: EQ BLANK-01 (400-126901-10) and FIELD BLANK-01 (400-126901-11). 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 Plant Crist

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

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

Protocol References:

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

Sample Summary

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

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126901-1	MW-101	Water	09/06/16 16:20	09/08/16 09:08
400-126901-2	MW-102	Water	09/06/16 17:45	09/08/16 09:08
400-126901-3	MW-103	Water	09/07/16 11:56	09/08/16 09:08
400-126901-4	MW-104	Water	09/07/16 12:25	09/08/16 09:08
400-126901-5	MW-105	Water	09/07/16 10:48	09/08/16 09:08
400-126901-6	MW-106	Water	09/07/16 07:56	09/08/16 09:08
400-126901-7	MW-109	Water	09/07/16 10:35	09/08/16 09:08
400-126901-8	MW-110	Water	09/07/16 09:08	09/08/16 09:08
400-126901-9	DUPLICATE-01	Water	09/06/16 15:20	09/08/16 09:08
400-126901-10	EQ BLANK-01	Water	09/07/16 11:00	09/08/16 09:08
400-126901-11	FIELD BLANK-01	Water	09/07/16 08:00	09/08/16 09:08

Client Sample ID: MW-101

Date Collected: 09/06/16 16:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-1

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	0.346		0.0908	0.0960	1.00	0.0808	pCi/L	09/27/16 14:15	10/19/16 07:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.990		0.364	0.375	1.00	0.516	pCi/L	09/27/16 15:31	10/12/16 17:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*09/27/16 15:31*	*10/12/16 17:48*	*1*
Y Carrier	*83.4*		*40 - 110*	*09/27/16 15:31*	*10/12/16 17:48*	*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	1.34		0.375	0.387	5.00	0.516	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-102

Date Collected: 09/06/16 17:45
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-2

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	0.452		0.0991	0.107	1.00	0.0761	pCi/L	09/27/16 14:15	10/19/16 07:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.01		0.447	0.457	1.00	0.643	pCi/L	10/14/16 17:43	10/19/16 18:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*40 - 110*	*10/14/16 17:43*	*10/19/16 18:36*	*1*
Y Carrier	*83.0*		*40 - 110*	*10/14/16 17:43*	*10/19/16 18:36*	*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	1.46		0.458	0.469	5.00	0.643	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-103

Date Collected: 09/07/16 11:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-3

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	2.77		0.242	0.347	1.00	0.0999	pCi/L	09/27/16 14:15	10/19/16 07:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:10*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.17		0.688	0.836	1.00	0.631	pCi/L	10/14/16 17:43	10/19/16 18:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*10/14/16 17:43*	*10/19/16 18:30*	*1*
Y Carrier	*82.6*		*40 - 110*	*10/14/16 17:43*	*10/19/16 18:30*	*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	7.94		0.729	0.905	5.00	0.631	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-104

Date Collected: 09/07/16 12:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-4

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	2.22		0.216	0.294	1.00	0.0790	pCi/L	09/27/16 14:15	10/19/16 07:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.8*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.5		1.02	1.47	1.00	0.737	pCi/L	10/14/16 17:43	10/19/16 18:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.9*		*40 - 110*	*10/14/16 17:43*	*10/19/16 18:30*	*1*
Y Carrier	*81.5*		*40 - 110*	*10/14/16 17:43*	*10/19/16 18:30*	*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	13.7		1.04	1.50	5.00	0.737	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-105

Date Collected: 09/07/16 10:48
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-5

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	1.22		0.158	0.193	1.00	0.0797	pCi/L	09/27/16 14:15	10/19/16 07:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:09*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.61		0.461	0.485	1.00	0.592	pCi/L	10/14/16 17:44	10/19/16 18:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*40 - 110*	*10/14/16 17:44*	*10/19/16 18:30*	*1*
Y Carrier	*86.7*		*40 - 110*	*10/14/16 17:44*	*10/19/16 18:30*	*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	2.83		0.488	0.522	5.00	0.592	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-106

Date Collected: 09/07/16 07:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-6

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	0.290		0.0898	0.0936	1.00	0.0967	pCi/L	09/27/16 14:15	10/19/16 07:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:10*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.536		0.321	0.325	1.00	0.489	pCi/L	09/27/16 15:31	10/12/16 17:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*09/27/16 15:31*	*10/12/16 17:49*	*1*
Y Carrier	*76.6*		*40 - 110*	*09/27/16 15:31*	*10/12/16 17:49*	*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	0.826		0.333	0.338	5.00	0.489	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-109

Date Collected: 09/07/16 10:35
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-7

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	0.772		0.124	0.142	1.00	0.0807	pCi/L	09/27/16 14:15	10/19/16 07:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:13*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.46		0.485	0.504	1.00	0.659	pCi/L	10/14/16 17:44	10/19/16 18:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*10/14/16 17:44*	*10/19/16 18:31*	*1*
Y Carrier	*87.9*		*40 - 110*	*10/14/16 17:44*	*10/19/16 18:31*	*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	2.24		0.501	0.523	5.00	0.659	pCi/L		10/21/16 09:39	1

Client Sample ID: MW-110

Date Collected: 09/07/16 09:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-8

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	2.53		0.231	0.324	1.00	0.0974	pCi/L	09/27/16 14:15	10/19/16 07:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.37		0.619	0.692	1.00	0.674	pCi/L	10/14/16 17:44	10/19/16 18:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*10/14/16 17:44*	*10/19/16 18:31*	*1*
Y Carrier	*86.0*		*40 - 110*	*10/14/16 17:44*	*10/19/16 18:31*	*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	5.90		0.660	0.764	5.00	0.674	pCi/L		10/21/16 09:39	1

Client Sample ID: DUPLICATE-01

Date Collected: 09/06/16 15:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-9

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	0.470		0.0992	0.108	1.00	0.0718	pCi/L	09/27/16 14:15	10/19/16 07:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.599		0.320	0.324	1.00	0.480	pCi/L	09/27/16 15:31	10/12/16 17:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*09/27/16 15:31*	*10/12/16 17:49*	*1*
Y Carrier	*75.9*		*40 - 110*	*09/27/16 15:31*	*10/12/16 17:49*	*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	1.07		0.335	0.342	5.00	0.480	pCi/L		10/21/16 09:39	1

Client Sample ID: EQ BLANK-01

Date Collected: 09/07/16 11:00
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-10

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	0.0270	U	0.0633	0.0634	1.00	0.112	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0930	U	0.199	0.199	1.00	0.374	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*92.0*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*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	-0.0660	U	0.209	0.209	5.00	0.374	pCi/L		10/21/16 09:39	1

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

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

Client Sample ID: FIELD BLANK-01

Date Collected: 09/07/16 08:00
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-11

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	0.0711	U	0.0555	0.0558	1.00	0.0826	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.163	U	0.248	0.249	1.00	0.416	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*93.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*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	0.234	U	0.254	0.255	5.00	0.416	pCi/L		10/21/16 09:39	1

Definitions/Glossary

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

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 09/06/16 16:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 07:09	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272032	09/27/16 15:31	MCJ	TAL SL
Total/NA	Analysis	9320		1	274191	10/12/16 17:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-102
Date Collected: 09/06/16 17:45
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 07:09	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274657	10/14/16 17:43	ASS	TAL SL
Total/NA	Analysis	9320		1	275151	10/19/16 18:36	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-103
Date Collected: 09/07/16 11:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 07:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274657	10/14/16 17:43	ASS	TAL SL
Total/NA	Analysis	9320		1	275152	10/19/16 18:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-104
Date Collected: 09/07/16 12:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 07:09	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274657	10/14/16 17:43	ASS	TAL SL
Total/NA	Analysis	9320		1	275152	10/19/16 18:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-105

Date Collected: 09/07/16 10:48
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 07:09	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274657	10/14/16 17:44	ASS	TAL SL
Total/NA	Analysis	9320		1	275152	10/19/16 18:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-106

Date Collected: 09/07/16 07:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 07:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272032	09/27/16 15:31	MCJ	TAL SL
Total/NA	Analysis	9320		1	274191	10/12/16 17:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-109

Date Collected: 09/07/16 10:35
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275151	10/19/16 07:13	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274657	10/14/16 17:44	ASS	TAL SL
Total/NA	Analysis	9320		1	275152	10/19/16 18:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: MW-110

Date Collected: 09/07/16 09:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126901-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275151	10/19/16 07:14	ALS	TAL SL
Total/NA	Prep	PrecSep_0			274657	10/14/16 17:44	ASS	TAL SL
Total/NA	Analysis	9320		1	275152	10/19/16 18:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

Client Sample ID: DUPLICATE-01

Lab Sample ID: 400-126901-9

Date Collected: 09/06/16 15:20
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272009	09/27/16 14:15	MCJ	TAL SL
Total/NA	Analysis	9315		1	275151	10/19/16 07:14	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272032	09/27/16 15:31	MCJ	TAL SL
Total/NA	Analysis	9320		1	274191	10/12/16 17:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: EQ BLANK-01

Lab Sample ID: 400-126901-10

Date Collected: 09/07/16 11:00
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Client Sample ID: FIELD BLANK-01

Lab Sample ID: 400-126901-11

Date Collected: 09/07/16 08:00
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275507	10/21/16 09:39	RTM	TAL SL

Laboratory References:

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

Rad

Prep Batch: 272009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	PrecSep-21	
400-126901-2	MW-102	Total/NA	Water	PrecSep-21	
400-126901-3	MW-103	Total/NA	Water	PrecSep-21	
400-126901-4	MW-104	Total/NA	Water	PrecSep-21	
400-126901-5	MW-105	Total/NA	Water	PrecSep-21	
400-126901-6	MW-106	Total/NA	Water	PrecSep-21	
400-126901-7	MW-109	Total/NA	Water	PrecSep-21	
400-126901-8	MW-110	Total/NA	Water	PrecSep-21	
400-126901-9	DUPLICATE-01	Total/NA	Water	PrecSep-21	
MB 160-272009/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-272009/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-272009/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 272032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-1	MW-101	Total/NA	Water	PrecSep_0	
400-126901-6	MW-106	Total/NA	Water	PrecSep_0	
400-126901-9	DUPLICATE-01	Total/NA	Water	PrecSep_0	
MB 160-272032/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-272032/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-272032/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 272039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-10	EQ BLANK-01	Total/NA	Water	PrecSep-21	
400-126901-11	FIELD BLANK-01	Total/NA	Water	PrecSep-21	
MB 160-272039/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-272039/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-272039/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 272045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-10	EQ BLANK-01	Total/NA	Water	PrecSep_0	
400-126901-11	FIELD BLANK-01	Total/NA	Water	PrecSep_0	
MB 160-272045/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-272045/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-272045/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 274657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126901-2	MW-102	Total/NA	Water	PrecSep_0	
400-126901-3	MW-103	Total/NA	Water	PrecSep_0	
400-126901-4	MW-104	Total/NA	Water	PrecSep_0	
400-126901-5	MW-105	Total/NA	Water	PrecSep_0	
400-126901-7	MW-109	Total/NA	Water	PrecSep_0	
400-126901-8	MW-110	Total/NA	Water	PrecSep_0	
MB 160-274657/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-274657/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-274657/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-272009/1-A
Matrix: Water
Analysis Batch: 275153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272009

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07461	U	0.0528	0.0532	1.00	0.0750	pCi/L	09/27/16 14:15	10/19/16 07:09	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*40 - 110*	*09/27/16 14:15*	*10/19/16 07:09*	*1*

Lab Sample ID: LCS 160-272009/2-A
Matrix: Water
Analysis Batch: 275153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272009

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	14.97		1.45	1.00	0.0923	pCi/L	135	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.2*		*40 - 110*

Lab Sample ID: LCSD 160-272009/3-A
Matrix: Water
Analysis Batch: 275153

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272009

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	13.87		1.35	1.00	0.0808	pCi/L	125	68 - 137	0.39	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*93.4*		*40 - 110*

Lab Sample ID: MB 160-272039/1-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272039

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06461	U	0.0613	0.0616	1.00	0.0971	pCi/L	09/27/16 16:54	10/19/16 07:27	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:27*	*1*

Lab Sample ID: LCS 160-272039/2-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272039

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	12.04		1.18	1.00	0.0699	pCi/L	108	68 - 137		

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

Lab Sample ID: LCS 160-272039/2-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272039

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

Lab Sample ID: LCSD 160-272039/3-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272039

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	11.51		1.13	1.00	0.0818	pCi/L	104	68 - 137	0.23	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	98.9		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-272032/1-A
Matrix: Water
Analysis Batch: 274191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272032

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.102		0.432	0.444	1.00	0.623	pCi/L	09/27/16 15:31	10/12/16 17:48	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110	09/27/16 15:31	10/12/16 17:48	1
Y Carrier	73.6		40 - 110	09/27/16 15:31	10/12/16 17:48	1

Lab Sample ID: LCS 160-272032/2-A
Matrix: Water
Analysis Batch: 274191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272032

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.4	16.06		1.76	1.00	0.499	pCi/L	111	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.2		40 - 110
Y Carrier	76.6		40 - 110

Lab Sample ID: LCSD 160-272032/3-A
Matrix: Water
Analysis Batch: 274191

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272032

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.4	16.87		1.82	1.00	0.481	pCi/L	117	56 - 140	0.23	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-272032/3-A
Matrix: Water
Analysis Batch: 274191

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272032

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	93.4		40 - 110
Y Carrier	77.8		40 - 110

Lab Sample ID: MB 160-272045/1-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272045

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3184	U	0.281	0.282	1.00	0.453	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110	09/27/16 18:52	10/13/16 12:57	1
Y Carrier	87.5		40 - 110	09/27/16 18:52	10/13/16 12:57	1

Lab Sample ID: LCS 160-272045/2-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272045

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.4	14.24		1.51	1.00	0.363	pCi/L	99	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: LCSD 160-272045/3-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272045

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.4	14.68		1.55	1.00	0.347	pCi/L	102	56 - 140	0.14	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	98.9		40 - 110
Y Carrier	92.3		40 - 110

Lab Sample ID: MB 160-274657/1-A
Matrix: Water
Analysis Batch: 275151

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274657

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4449	U	0.395	0.397	1.00	0.632	pCi/L	10/14/16 17:43	10/19/16 18:36	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-274657/1-A
Matrix: Water
Analysis Batch: 275151

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 274657

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110	10/14/16 17:43	10/19/16 18:36	1
Y Carrier	78.1		40 - 110	10/14/16 17:43	10/19/16 18:36	1

Lab Sample ID: LCS 160-274657/2-A
Matrix: Water
Analysis Batch: 275151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 274657

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			19.2	23.95		2.59	1.00	0.646	pCi/L	125	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.7		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: LCSD 160-274657/3-A
Matrix: Water
Analysis Batch: 275151

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 274657

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			19.2	22.45		2.43	1.00	0.601	pCi/L	117	56 - 140	0.30	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	92.0		40 - 110
Y Carrier	82.2		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 Surles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Landfill 1	SSOW#:			

Analysis Requested

400-126901 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-101	9/6/16	1620	G	Water			X	X	X	X		
MW-102	9/6/16	1745	G	Water								
MW-103	9/6/16	1156	G	Water								
MW-104	9/7/16	1225	G	Water								
MW-105	9/7/16	1048	G	Water								
MW-106	9/7/16	0756	G	Water								
MW-109	9/7/16	1035	G	Water								
MW-110	9/7/16	0908	G	Water			X	X	X	X		
Duplicate -01	9/6/16	1520	G	water			X	X	X	X		
EQ Blank -01	9/7/16	1100	G	water			X	X	X	X		
Field Blank-01	9/7/16	0800	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
1	[signature]	9/8/16 0908	RDH	[signature]	9-8-16 0908	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0°C, 1.0°C, 1.7°C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126901-2
SDG Number: Landfill 1

Login Number: 126901
List Number: 1
Creator: Perez, Trina M

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	0.0°C,1.0°C, 1.7°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-126901-2
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126904-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
10/10/2016 6:34:10 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 25
Chain of Custody 34
Receipt Checklists 35
Certification Summary 36

Job ID: 400-126904-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126904-1

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 323279 recovered above the upper control limit for Boron. The samples associated with this CCV were less than the Reporting Limit for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-300 (400-126904-1) and DUPLICATE-02 (400-126904-6).

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-126904-2), MW-304 (400-126904-3) and MW-308 (400-126904-5). Elevated reporting limits (RLs) are provided.

Detection Summary

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-126904-1

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
Boron	0.028	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.60		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.88				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-126904-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.00045	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	68		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.022		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0065		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00015	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.6		1.0	0.42	mg/L	100		6020	Total Recoverable
Molybdenum - DL	2.4		0.30	0.017	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	410		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	47		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	160		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	6.72				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-126904-3

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	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	94		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.019		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00056	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Molybdenum	0.0029	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0045		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00010	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-126904-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	0.95		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	650		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	43		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	340		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	5.36				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-126904-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.78		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00052	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.90				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-126904-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	75		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0073		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00036	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	6.4		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	590		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	57		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	280		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.01				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-126904-6

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	0.58		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0035	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.88				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Client Sample ID: FB-02 — Lab Sample ID: 400-126904-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00028	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: EB-02 — Lab Sample ID: 400-126904-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

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

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 Plant Crist

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126904-1	MW-300	Water	09/07/16 14:15	09/08/16 09:08
400-126904-2	MW-303	Water	09/08/16 06:12	09/08/16 09:08
400-126904-3	MW-304	Water	09/07/16 16:08	09/08/16 09:08
400-126904-4	MW-305	Water	09/07/16 15:17	09/08/16 09:08
400-126904-5	MW-308	Water	09/07/16 16:56	09/08/16 09:08
400-126904-6	DUP-02	Water	09/07/16 13:15	09/08/16 09:08
400-126904-7	FB-02	Water	09/08/16 06:20	09/08/16 09:08
400-126904-8	EB-02	Water	09/08/16 06:25	09/08/16 09:08

Client Sample Results

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 09/07/16 14:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-1

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		09/12/16 13:22	09/19/16 17:22	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 17:22	5
Barium	**0.011**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 17:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:22	5
Boron	**0.028**	**I**	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 17:22	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:22	5
Calcium	**0.60**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 17:22	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 17:22	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 17:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 17:22	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 17:22	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 17:22	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 17:22	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 17:22	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		09/13/16 09:59	09/16/16 14:31	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8.0**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**8.1**		2.0	0.60	mg/L			09/09/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/21/16 18:33	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 15:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.88**				SU			09/07/16 14:15	1

Client Sample ID: MW-303

Date Collected: 09/08/16 06:12
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-2

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		09/12/16 13:22	09/19/16 17:27	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 17:27	5
Barium	**0.030**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 17:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:27	5
Cadmium	**0.00045**	**I**	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:27	5
Calcium	**68**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 17:27	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 17:27	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 17:27	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 17:27	5
Lithium	**0.022**		0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 17:27	5
Selenium	**0.0065**		0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 17:27	5
Thallium	**0.00015**	**I**	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 17:27	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.6**		1.0	0.42	mg/L		09/12/16 13:22	09/26/16 12:49	100
Molybdenum	**2.4**		0.30	0.017	mg/L		09/12/16 13:22	09/26/16 12:49	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		09/13/16 09:59	09/16/16 14:32	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**		5.0	3.4	mg/L			09/14/16 20:00	1
Chloride	**47**		4.0	1.2	mg/L			09/09/16 12:07	2
Fluoride	**0.12**		0.10	0.032	mg/L			09/27/16 09:31	1
Sulfate	**160**		25	7.0	mg/L			09/15/16 13:59	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.72**				SU			09/08/16 06:12	1

Client Sample ID: MW-304

Date Collected: 09/07/16 16:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-3

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		09/12/16 13:22	09/19/16 17:49	5
Arsenic	**0.0050**		0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 17:49	5
Barium	**0.026**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 17:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:49	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:49	5
Calcium	**94**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 17:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 17:49	5
Cobalt	**0.019**		0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 17:49	5
Lead	**0.00056**	**I**	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 17:49	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 17:49	5
Molybdenum	**0.0029**	**I**	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 17:49	5
Selenium	**0.0045**		0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 17:49	5
Thallium	**0.00010**	**I**	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 17:49	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.95**		0.25	0.11	mg/L		09/12/16 13:22	09/26/16 12:53	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		09/13/16 09:59	09/16/16 14:34	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**650**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**43**		4.0	1.2	mg/L			09/09/16 12:07	2
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			09/21/16 18:35	1
Sulfate	**340**		50	14	mg/L			09/15/16 13:59	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.36**				SU			09/07/16 16:08	1

Client Sample ID: MW-305

Date Collected: 09/07/16 15:17
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-4

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		09/12/16 13:22	09/19/16 17:53	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 17:53	5
Barium	**0.017**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 17:53	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:53	5
Calcium	**0.78**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 17:53	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 17:53	5
Cobalt	**0.00052**	**I**	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 17:53	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 17:53	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 17:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 17:53	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 17:53	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 17:53	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/26/16 12:58	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		09/13/16 09:59	09/16/16 14:35	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**6.9**		2.0	0.60	mg/L			09/12/16 15:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/27/16 08:17	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 15:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.90**				SU			09/07/16 15:17	1

Client Sample ID: MW-308

Date Collected: 09/07/16 16:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-5

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		09/12/16 13:22	09/19/16 17:58	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 17:58	5
Barium	**0.029**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 17:58	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:58	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 17:58	5
Calcium	**75**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 17:58	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 17:58	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 17:58	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 17:58	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 17:58	5
Selenium	**0.0073**		0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 17:58	5
Thallium	**0.00036**	**I**	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 17:58	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.4**		0.25	0.11	mg/L		09/12/16 13:22	09/26/16 13:02	25
Lithium	0.016	U	0.025	0.016	mg/L		09/12/16 13:22	09/26/16 13:02	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		09/13/16 09:59	09/16/16 14:36	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**590**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**57**		4.0	1.2	mg/L			09/12/16 16:34	2
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			09/27/16 08:19	1
Sulfate	**280**		50	14	mg/L			09/15/16 14:02	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.01**				SU			09/07/16 16:56	1

Client Sample ID: DUP-02

Date Collected: 09/07/16 13:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-6

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		09/12/16 13:22	09/19/16 18:20	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 18:20	5
Barium	**0.011**		0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 18:20	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:20	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 18:20	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 18:20	5
Calcium	**0.58**		0.25	0.13	mg/L		09/12/16 13:22	09/19/16 18:20	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 18:20	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 18:20	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 18:20	5
Lithium	**0.0035**	**I**	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 18:20	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 18:20	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 18:20	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 18:20	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		09/13/16 09:59	09/16/16 14:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			09/13/16 12:35	1
Chloride	**7.6**		2.0	0.60	mg/L			09/12/16 15:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/27/16 08:21	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/12/16 15:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.88**				SU			09/07/16 13:15	1

Client Sample ID: FB-02

Date Collected: 09/08/16 06:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-7

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		09/12/16 13:22	09/19/16 16:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 16:40	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 16:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:40	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 16:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:40	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 13:22	09/19/16 16:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 16:40	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 16:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 16:40	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 16:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 16:40	5
Selenium	**0.00028**	**I**	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 16:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 16:40	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		09/13/16 09:59	09/16/16 14:39	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			09/14/16 20:00	1
Chloride	0.60	U	2.0	0.60	mg/L			09/15/16 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/29/16 17:35	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/15/16 12:00	1

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Client Sample ID: EB-02
Date Collected: 09/08/16 06:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-8
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		09/12/16 13:22	09/19/16 16:44	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 16:44	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 16:44	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:44	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 16:44	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:44	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 13:22	09/19/16 16:44	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 16:44	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 16:44	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 16:44	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 16:44	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 16:44	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 16:44	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 16:44	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		09/13/16 09:59	09/16/16 14:40	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			09/14/16 20:00	1
Chloride	0.60	U	2.0	0.60	mg/L			09/15/16 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/29/16 17:38	1
Sulfate	1.4	U	5.0	1.4	mg/L			09/15/16 12:00	1

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-300

Date Collected: 09/07/16 14:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 17:22	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322019	09/09/16 11:39	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 15:49	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/07/16 14:15	BWS	TAL PEN

Client Sample ID: MW-303

Date Collected: 09/08/16 06:12
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 17:27	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	324199	09/26/16 12:49	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	322019	09/09/16 12:07	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324233	09/27/16 09:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	322815	09/15/16 13:59	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 06:12	BWS	TAL PEN

Client Sample ID: MW-304

Date Collected: 09/07/16 16:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 17:49	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	324199	09/26/16 12:53	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	322019	09/09/16 12:07	LSS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	323668	09/21/16 18:35	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	322815	09/15/16 13:59	SEH	TAL PEN

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	326079	09/07/16 16:08	BWS	TAL PEN

Client Sample ID: MW-305
Lab Sample ID: 400-126904-4

Date Collected: 09/07/16 15:17
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 17:53	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	5	324199	09/26/16 12:58	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322296	09/12/16 15:55	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324233	09/27/16 08:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 15:49	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/07/16 15:17	BWS	TAL PEN

Client Sample ID: MW-308
Lab Sample ID: 400-126904-5

Date Collected: 09/07/16 16:56
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 17:58	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	324199	09/26/16 13:02	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	322296	09/12/16 16:34	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324233	09/27/16 08:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	322815	09/15/16 14:02	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/07/16 16:56	BWS	TAL PEN

Client Sample ID: DUP-02
Lab Sample ID: 400-126904-6

Date Collected: 09/07/16 13:15
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 18:20	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322366	09/13/16 12:35	JLB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Client Sample ID: DUP-02

Lab Sample ID: 400-126904-6

Date Collected: 09/07/16 13:15
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	322296	09/12/16 15:55	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324233	09/27/16 08:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322257	09/12/16 15:49	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/07/16 13:15	BWS	TAL PEN

Client Sample ID: FB-02

Lab Sample ID: 400-126904-7

Date Collected: 09/08/16 06:20
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 16:40	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322813	09/15/16 11:51	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 17:35	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322815	09/15/16 12:00	SEH	TAL PEN

Client Sample ID: EB-02

Lab Sample ID: 400-126904-8

Date Collected: 09/08/16 06:25
Matrix: Water
Date Received: 09/08/16 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322228	09/12/16 13:22	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 16:44	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322813	09/15/16 11:51	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 17:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	322815	09/15/16 12:00	SEH	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 322228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total Recoverable	Water	3005A	
400-126904-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-126904-2	MW-303	Total Recoverable	Water	3005A	
400-126904-3	MW-304	Total Recoverable	Water	3005A	
400-126904-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-126904-4	MW-305	Total Recoverable	Water	3005A	
400-126904-4 - DL	MW-305	Total Recoverable	Water	3005A	
400-126904-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-126904-5	MW-308	Total Recoverable	Water	3005A	
400-126904-6	DUP-02	Total Recoverable	Water	3005A	
400-126904-7	FB-02	Total Recoverable	Water	3005A	
400-126904-8	EB-02	Total Recoverable	Water	3005A	
MB 400-322228/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-322228/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126904-2 MS	MW-303	Total Recoverable	Water	3005A	
400-126904-2 MSD	MW-303	Total Recoverable	Water	3005A	

Prep Batch: 322329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	7470A	
400-126904-2	MW-303	Total/NA	Water	7470A	
400-126904-3	MW-304	Total/NA	Water	7470A	
400-126904-4	MW-305	Total/NA	Water	7470A	
400-126904-5	MW-308	Total/NA	Water	7470A	
400-126904-6	DUP-02	Total/NA	Water	7470A	
400-126904-7	FB-02	Total/NA	Water	7470A	
400-126904-8	EB-02	Total/NA	Water	7470A	
MB 400-322329/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-322329/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127048-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-127048-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 322956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	7470A	322329
400-126904-2	MW-303	Total/NA	Water	7470A	322329
400-126904-3	MW-304	Total/NA	Water	7470A	322329
400-126904-4	MW-305	Total/NA	Water	7470A	322329
400-126904-5	MW-308	Total/NA	Water	7470A	322329
400-126904-6	DUP-02	Total/NA	Water	7470A	322329
400-126904-7	FB-02	Total/NA	Water	7470A	322329
400-126904-8	EB-02	Total/NA	Water	7470A	322329
MB 400-322329/14-A	Method Blank	Total/NA	Water	7470A	322329
LCS 400-322329/15-A	Lab Control Sample	Total/NA	Water	7470A	322329
400-127048-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	322329
400-127048-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	322329

Analysis Batch: 323279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total Recoverable	Water	6020	322228
400-126904-2	MW-303	Total Recoverable	Water	6020	322228

Metals (Continued)

Analysis Batch: 323279 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-3	MW-304	Total Recoverable	Water	6020	322228
400-126904-4	MW-305	Total Recoverable	Water	6020	322228
400-126904-5	MW-308	Total Recoverable	Water	6020	322228
400-126904-6	DUP-02	Total Recoverable	Water	6020	322228
400-126904-7	FB-02	Total Recoverable	Water	6020	322228
400-126904-8	EB-02	Total Recoverable	Water	6020	322228
MB 400-322228/1-A ^5	Method Blank	Total Recoverable	Water	6020	322228
LCS 400-322228/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	322228
400-126904-2 MS	MW-303	Total Recoverable	Water	6020	322228
400-126904-2 MSD	MW-303	Total Recoverable	Water	6020	322228

Analysis Batch: 324199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-2 - DL	MW-303	Total Recoverable	Water	6020	322228
400-126904-3 - DL	MW-304	Total Recoverable	Water	6020	322228
400-126904-4 - DL	MW-305	Total Recoverable	Water	6020	322228
400-126904-5 - DL	MW-308	Total Recoverable	Water	6020	322228

General Chemistry

Analysis Batch: 322019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-126904-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-126904-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
MB 400-322019/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-322019/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-322019/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-126832-I-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-126832-I-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-126901-A-9 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-126904-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-126904-6	DUP-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-322257/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-322257/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-322257/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-126069-K-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-126069-K-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 322296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-126904-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-126904-6	DUP-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-322296/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-322296/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 322296 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-322296/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-126932-E-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-126932-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	SM 2540C	
400-126904-3	MW-304	Total/NA	Water	SM 2540C	
400-126904-4	MW-305	Total/NA	Water	SM 2540C	
400-126904-5	MW-308	Total/NA	Water	SM 2540C	
400-126904-6	DUP-02	Total/NA	Water	SM 2540C	
MB 400-322366/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322366/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126904-1 DU	MW-300	Total/NA	Water	SM 2540C	

Analysis Batch: 322606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-2	MW-303	Total/NA	Water	SM 2540C	
400-126904-7	FB-02	Total/NA	Water	SM 2540C	
400-126904-8	EB-02	Total/NA	Water	SM 2540C	
MB 400-322606/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322606/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126904-2 DU	MW-303	Total/NA	Water	SM 2540C	

Analysis Batch: 322709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322709/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-322709/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-322709/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322718/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-322718/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-322718/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 322813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-7	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-126904-8	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-126904-7 MS	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-126904-7 MSD	FB-02	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-126904-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-126904-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-126904-7	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-126904-8	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-126904-7 MS	FB-02	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 322815 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-7 MSD	FB-02	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 323668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	SM 4500 F C	
400-126904-3	MW-304	Total/NA	Water	SM 4500 F C	
MB 400-323668/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-323668/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-126757-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-126757-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-126901-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 324233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-2	MW-303	Total/NA	Water	SM 4500 F C	
400-126904-4	MW-305	Total/NA	Water	SM 4500 F C	
400-126904-5	MW-308	Total/NA	Water	SM 4500 F C	
400-126904-6	DUP-02	Total/NA	Water	SM 4500 F C	
MB 400-324233/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-324233/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-75957-F-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 324737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-7	FB-02	Total/NA	Water	SM 4500 F C	
400-126904-8	EB-02	Total/NA	Water	SM 4500 F C	
MB 400-324737/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-324737/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-76002-J-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-76002-J-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-126926-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 326079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	Field Sampling	
400-126904-2	MW-303	Total/NA	Water	Field Sampling	
400-126904-3	MW-304	Total/NA	Water	Field Sampling	
400-126904-4	MW-305	Total/NA	Water	Field Sampling	
400-126904-5	MW-308	Total/NA	Water	Field Sampling	
400-126904-6	DUP-02	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-322228/1-A ^5
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/12/16 13:22	09/19/16 16:31	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/12/16 13:22	09/19/16 16:31	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/12/16 13:22	09/19/16 16:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:31	5
Boron	0.021	U	0.050	0.021	mg/L		09/12/16 13:22	09/19/16 16:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/12/16 13:22	09/19/16 16:31	5
Calcium	0.13	U	0.25	0.13	mg/L		09/12/16 13:22	09/19/16 16:31	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/12/16 13:22	09/19/16 16:31	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/12/16 13:22	09/19/16 16:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/12/16 13:22	09/19/16 16:31	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/12/16 13:22	09/19/16 16:31	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/12/16 13:22	09/19/16 16:31	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/12/16 13:22	09/19/16 16:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/12/16 13:22	09/19/16 16:31	5

Lab Sample ID: LCS 400-322228/2-A ^1
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0513		mg/L		103	80 - 120
Arsenic	0.0500	0.0529		mg/L		106	80 - 120
Barium	0.0500	0.0524		mg/L		105	80 - 120
Beryllium	0.0500	0.0510		mg/L		102	80 - 120
Boron	0.100	0.108		mg/L		108	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	5.00	5.08		mg/L		102	80 - 120
Chromium	0.0500	0.0508		mg/L		102	80 - 120
Cobalt	0.0500	0.0537		mg/L		107	80 - 120
Lead	0.0500	0.0527		mg/L		105	80 - 120
Lithium	0.0500	0.0541		mg/L		108	80 - 120
Molybdenum	0.0500	0.0519		mg/L		104	80 - 120
Selenium	0.0500	0.0509		mg/L		102	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-126904-2 MS
Matrix: Water
Analysis Batch: 323279

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0565		mg/L		113	75 - 125
Arsenic	0.00046	U	0.0500	0.0552		mg/L		110	75 - 125
Barium	0.030		0.0500	0.0852		mg/L		110	75 - 125
Beryllium	0.00034	U	0.0500	0.0531		mg/L		106	75 - 125
Cadmium	0.00045	I	0.0500	0.0507		mg/L		101	75 - 125
Calcium	68		5.00	71.9		mg/L		77	75 - 125
Chromium	0.0011	U	0.0500	0.0506		mg/L		101	75 - 125
Cobalt	0.00040	U	0.0500	0.0543		mg/L		109	75 - 125

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

Lab Sample ID: 400-126904-2 MS
Matrix: Water
Analysis Batch: 323279

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 322228

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.00035	U	0.0500	0.0548		mg/L		110	75 - 125
Lithium	0.022		0.0500	0.0818		mg/L		121	75 - 125
Selenium	0.0065		0.0500	0.0574		mg/L		102	75 - 125
Thallium	0.00015	I	0.0100	0.0105		mg/L		104	75 - 125

Lab Sample ID: 400-126904-2 MSD
Matrix: Water
Analysis Batch: 323279

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 322228

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	0.0546		mg/L		109	75 - 125	3	20
Arsenic	0.00046	U	0.0500	0.0559		mg/L		112	75 - 125	1	20
Barium	0.030		0.0500	0.0846		mg/L		109	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0482		mg/L		96	75 - 125	10	20
Cadmium	0.00045	I	0.0500	0.0524		mg/L		104	75 - 125	3	20
Calcium	68		5.00	73.9		mg/L		117	75 - 125	3	20
Chromium	0.0011	U	0.0500	0.0514		mg/L		103	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0552		mg/L		110	75 - 125	2	20
Lead	0.00035	U	0.0500	0.0544		mg/L		109	75 - 125	1	20
Lithium	0.022		0.0500	0.0726		mg/L		102	75 - 125	12	20
Selenium	0.0065		0.0500	0.0586		mg/L		104	75 - 125	2	20
Thallium	0.00015	I	0.0100	0.0103		mg/L		102	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-322329/14-A
Matrix: Water
Analysis Batch: 322956

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322329

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		09/13/16 08:48	09/16/16 13:52	1

Lab Sample ID: LCS 400-322329/15-A
Matrix: Water
Analysis Batch: 322956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322329

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

Lab Sample ID: 400-127048-D-1-B MS
Matrix: Water
Analysis Batch: 322956

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 322329

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00209		mg/L		104	80 - 120

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

Lab Sample ID: 400-127048-D-1-C MSD
Matrix: Water
Analysis Batch: 322956

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 322329

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	0.00198		mg/L		99	80 - 120	5	20

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

Lab Sample ID: MB 400-322366/1
Matrix: Water
Analysis Batch: 322366

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			09/13/16 12:35	1

Lab Sample ID: LCS 400-322366/2
Matrix: Water
Analysis Batch: 322366

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

Lab Sample ID: 400-126904-1 DU
Matrix: Water
Analysis Batch: 322366

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	8.0		8.00		mg/L		0	5

Lab Sample ID: MB 400-322606/1
Matrix: Water
Analysis Batch: 322606

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			09/14/16 20:00	1

Lab Sample ID: LCS 400-322606/2
Matrix: Water
Analysis Batch: 322606

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-126904-2 DU
Matrix: Water
Analysis Batch: 322606

Client Sample ID: MW-303
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	410		414		mg/L		0.5	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-322019/6
Matrix: Water
Analysis Batch: 322019

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/09/16 08:58	1

Lab Sample ID: LCS 400-322019/7
Matrix: Water
Analysis Batch: 322019

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	28.9		mg/L		96	90 - 110

Lab Sample ID: MRL 400-322019/3
Matrix: Water
Analysis Batch: 322019

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	1.51	I	mg/L		76	50 - 150

Lab Sample ID: 400-126832-I-1 MS
Matrix: Water
Analysis Batch: 322019

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	6.7		10.0	18.2		mg/L		114	73 - 120

Lab Sample ID: 400-126832-I-1 MSD
Matrix: Water
Analysis Batch: 322019

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	6.7		10.0	18.1		mg/L		114	73 - 120	0	8

Lab Sample ID: 400-126901-A-9 DU
Matrix: Water
Analysis Batch: 322019

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	4.2		4.21		mg/L		0.7	8

Lab Sample ID: MB 400-322296/6
Matrix: Water
Analysis Batch: 322296

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/12/16 13:27	1

Lab Sample ID: LCS 400-322296/7
Matrix: Water
Analysis Batch: 322296

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	29.5		mg/L		98	90 - 110

Lab Sample ID: MRL 400-322296/3
Matrix: Water
Analysis Batch: 322296

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	1.50	I	mg/L		75	50 - 150		

Lab Sample ID: 400-126932-E-4 MS
Matrix: Water
Analysis Batch: 322296

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	4.0		10.0	15.9		mg/L		119	73 - 120		

Lab Sample ID: 400-126932-E-4 MSD
Matrix: Water
Analysis Batch: 322296

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	4.0		10.0	15.9		mg/L		119	73 - 120	0	8

Lab Sample ID: MB 400-322709/6
Matrix: Water
Analysis Batch: 322709

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/15/16 08:29	1

Lab Sample ID: LCS 400-322709/7
Matrix: Water
Analysis Batch: 322709

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	29.4		mg/L		98	90 - 110		

Lab Sample ID: MRL 400-322709/3
Matrix: Water
Analysis Batch: 322709

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: 400-126904-7 MS
Matrix: Water
Analysis Batch: 322813

Client Sample ID: FB-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	0.60	U	10.0	10.6		mg/L		106	73 - 120		

Lab Sample ID: 400-126904-7 MSD
Matrix: Water
Analysis Batch: 322813

Client Sample ID: FB-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	0.60	U	10.0	10.4		mg/L		104	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-323668/3
Matrix: Water
Analysis Batch: 323668

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			09/21/16 17:32	1

Lab Sample ID: LCS 400-323668/4
Matrix: Water
Analysis Batch: 323668

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	4.00		mg/L		100	90 - 110		

Lab Sample ID: 400-126757-A-3 MS
Matrix: Water
Analysis Batch: 323668

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	1.01		mg/L		101	75 - 125		

Lab Sample ID: 400-126757-A-3 MSD
Matrix: Water
Analysis Batch: 323668

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	0.970		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-126901-A-5 DU
Matrix: Water
Analysis Batch: 323668

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 400-324233/4
Matrix: Water
Analysis Batch: 324233

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			09/27/16 07:57	1

Lab Sample ID: LCS 400-324233/5
Matrix: Water
Analysis Batch: 324233

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	4.09		mg/L		102	90 - 110		

Lab Sample ID: 660-75957-F-4 DU
Matrix: Water
Analysis Batch: 324233

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.63			0.630		mg/L				0	4

Lab Sample ID: MB 400-324737/3
Matrix: Water
Analysis Batch: 324737

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			09/29/16 17:06	1

Lab Sample ID: LCS 400-324737/4
Matrix: Water
Analysis Batch: 324737

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	4.17		mg/L		104	90 - 110		

Lab Sample ID: 660-76002-J-2 MS
Matrix: Water
Analysis Batch: 324737

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	0.68		1.00	1.46		mg/L		78	75 - 125		

Lab Sample ID: 660-76002-J-2 MSD
Matrix: Water
Analysis Batch: 324737

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	0.68		1.00	1.49		mg/L		81	75 - 125	2	4

Lab Sample ID: 400-126926-A-3 DU
Matrix: Water
Analysis Batch: 324737

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 400-322257/6
Matrix: Water
Analysis Batch: 322257

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			09/12/16 13:29	1

Lab Sample ID: LCS 400-322257/7
Matrix: Water
Analysis Batch: 322257

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		100	90 - 110		

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

Lab Sample ID: MRL 400-322257/3
Matrix: Water
Analysis Batch: 322257

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	4.33	I	mg/L		87	50 - 150

Lab Sample ID: 400-126069-K-3 MS
Matrix: Water
Analysis Batch: 322257

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	1.5	I	10.0	11.2		mg/L		97	77 - 128

Lab Sample ID: 400-126069-K-3 MSD
Matrix: Water
Analysis Batch: 322257

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	1.5	I	10.0	12.5	J3	mg/L		110	77 - 128	11	5

Lab Sample ID: MB 400-322718/6
Matrix: Water
Analysis Batch: 322718

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			09/15/16 08:31	1

Lab Sample ID: LCS 400-322718/7
Matrix: Water
Analysis Batch: 322718

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	15.3		mg/L		102	90 - 110

Lab Sample ID: MRL 400-322718/3
Matrix: Water
Analysis Batch: 322718

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	4.42	I	mg/L		88	50 - 150

Lab Sample ID: 400-126904-7 MS
Matrix: Water
Analysis Batch: 322815

Client Sample ID: FB-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	U	10.0	10.1		mg/L		101	77 - 128

Lab Sample ID: 400-126904-7 MSD
Matrix: Water
Analysis Batch: 322815

Client Sample ID: FB-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	1.4	U	10.0	10.2		mg/L		102	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 Surles	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: 1-1
Company: Gulf Power Company		Analysis Requested		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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Landfill 2	SSOW#:			

400-126904 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-300	9/7/16	1415	G	Water			X	X	X	X		
MW-303	9/8/16	0612	G	Water			X	X	X	X		
MW-304	9/7/16	1608	G	Water			X	X	X	X		
MW-305	9/7/16	1517	G	Water			X	X	X	X		
MW-308	9/7/16	1656	G	Water			X	X	X	X		
DUP-02	9/7/16	1315	G	W			X	X	X	X		
Field Blank-02	9/8/16	0620	G	W			X	X	X	X		
EQ Blank-02	9/8/16	0625	G	W			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
	Relinquished by:	9/8/16 0908	RDH		9-8-16 0908	
	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: 10E, 0.0°C, 1.7°C JR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126904-1
SDG Number: Landfill 2

Login Number: 126904
List Number: 1
Creator: Perez, Trina M

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	0.0°C, 1.0°C, 1.7°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126904-1
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126904-2
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
11/16/2016 5:35:31 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 18
Chain of Custody 21
Receipt Checklists 22
Certification Summary 23

Job ID: 400-126904-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126904-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-272045: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-126904-1), MW-303 (400-126904-2), MW-304 (400-126904-3), MW-308 (400-126904-5), DUP-02 (400-126904-6), FB-02 (400-126904-7) and EB-02 (400-126904-8). 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 160-275155: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-305 (400-126904-4). 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 160-272039: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-126904-1), MW-303 (400-126904-2), MW-304 (400-126904-3), MW-308 (400-126904-5), DUP-02 (400-126904-6), FB-02 (400-126904-7) and EB-02 (400-126904-8). 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 160-275138: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-305 (400-126904-4). 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 Plant Crist

TestAmerica Job ID: 400-126904-2
SDG: Landfill 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

Protocol References:

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

Sample Summary

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

TestAmerica Job ID: 400-126904-2
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126904-1	MW-300	Water	09/07/16 14:15	09/08/16 09:08
400-126904-2	MW-303	Water	09/08/16 06:12	09/08/16 09:08
400-126904-3	MW-304	Water	09/07/16 16:08	09/08/16 09:08
400-126904-4	MW-305	Water	09/07/16 15:17	09/08/16 09:08
400-126904-5	MW-308	Water	09/07/16 16:56	09/08/16 09:08
400-126904-6	DUP-02	Water	09/07/16 13:15	09/08/16 09:08
400-126904-7	FB-02	Water	09/08/16 06:20	09/08/16 09:08
400-126904-8	EB-02	Water	09/08/16 06:25	09/08/16 09:08

Client Sample ID: MW-300

Date Collected: 09/07/16 14:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-1

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	0.538		0.113	0.123	1.00	0.0962	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.71		0.503	0.664	1.00	0.418	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*90.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*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	5.25		0.516	0.675	5.00	0.418	pCi/L		11/16/16 09:05	1

Client Sample ID: MW-303

Date Collected: 09/08/16 06:12
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-2

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	0.443		0.0997	0.107	1.00	0.0735	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.28		0.457	0.548	1.00	0.428	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*80.4*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*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	3.73		0.467	0.558	5.00	0.428	pCi/L		11/16/16 09:05	1

Client Sample ID: MW-304

Date Collected: 09/07/16 16:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-3

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	2.49		0.225	0.318	1.00	0.0970	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.00		0.345	0.391	1.00	0.363	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*97.9*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*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	4.49		0.412	0.504	5.00	0.363	pCi/L		11/16/16 09:05	1

Client Sample ID: MW-305

Date Collected: 09/07/16 15:17
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-4

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	0.610		0.202	0.209	1.00	0.224	pCi/L	10/19/16 10:32	11/15/16 07:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*10/19/16 10:32*	*11/15/16 07:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.877		0.326	0.336	1.00	0.458	pCi/L	10/19/16 11:44	11/14/16 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*10/19/16 11:44*	*11/14/16 16:10*	*1*
Y Carrier	*82.6*		*40 - 110*	*10/19/16 11:44*	*11/14/16 16:10*	*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	1.49		0.383	0.395	5.00	0.458	pCi/L		11/16/16 09:05	1

Client Sample ID: MW-308

Date Collected: 09/07/16 16:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-5

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	0.915		0.137	0.160	1.00	0.0795	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.13		0.351	0.402	1.00	0.368	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*95.7*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*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	3.04		0.376	0.432	5.00	0.368	pCi/L		11/16/16 09:05	1

Client Sample ID: DUP-02

Date Collected: 09/07/16 13:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-6

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	0.599		0.111	0.124	1.00	0.0724	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.85		0.426	0.554	1.00	0.332	pCi/L	09/27/16 18:52	10/13/16 12:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:58*	*1*
Y Carrier	*96.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:58*	*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	4.45		0.440	0.568	5.00	0.332	pCi/L		11/16/16 09:05	1

Client Sample ID: FB-02

Date Collected: 09/08/16 06:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-7

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	-0.000945	U	0.0374	0.0374	1.00	0.0761	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.344	U	0.247	0.249	1.00	0.389	pCi/L	09/27/16 18:52	10/13/16 12:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:58*	*1*
Y Carrier	*94.6*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:58*	*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	0.343	U	0.250	0.252	5.00	0.389	pCi/L		11/16/16 09:05	1

Client Sample ID: EB-02

Date Collected: 09/08/16 06:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-8

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	0.0605	U	0.0503	0.0506	1.00	0.0753	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.233	U	0.228	0.229	1.00	0.370	pCi/L	09/27/16 18:52	10/13/16 13:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:12*	*1*
Y Carrier	*95.0*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:12*	*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	0.294	U	0.233	0.234	5.00	0.370	pCi/L		11/16/16 09:05	1

Definitions/Glossary

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

TestAmerica Job ID: 400-126904-2
SDG: Landfill 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-126904-2
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 09/07/16 14:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Client Sample ID: MW-303
Date Collected: 09/08/16 06:12
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Client Sample ID: MW-304
Date Collected: 09/07/16 16:08
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Client Sample ID: MW-305
Date Collected: 09/07/16 15:17
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			275138	10/19/16 10:32	ASB	TAL SL
Total/NA	Analysis	9315		1	279365	11/15/16 07:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			275155	10/19/16 11:44	ASB	TAL SL
Total/NA	Analysis	9320		1	279153	11/14/16 16:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126904-2
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 09/07/16 16:56
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Client Sample ID: DUP-02
Date Collected: 09/07/16 13:15
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Client Sample ID: FB-02
Date Collected: 09/08/16 06:20
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274413	10/13/16 12:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Client Sample ID: EB-02
Date Collected: 09/08/16 06:25
Date Received: 09/08/16 09:08

Lab Sample ID: 400-126904-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	279464	11/16/16 09:05	RTM	TAL SL

Laboratory References:

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

Rad

Prep Batch: 272039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	PrecSep-21	
400-126904-2	MW-303	Total/NA	Water	PrecSep-21	
400-126904-3	MW-304	Total/NA	Water	PrecSep-21	
400-126904-5	MW-308	Total/NA	Water	PrecSep-21	
400-126904-6	DUP-02	Total/NA	Water	PrecSep-21	
400-126904-7	FB-02	Total/NA	Water	PrecSep-21	
400-126904-8	EB-02	Total/NA	Water	PrecSep-21	
MB 160-272039/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-272039/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-272039/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 272045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-1	MW-300	Total/NA	Water	PrecSep_0	
400-126904-2	MW-303	Total/NA	Water	PrecSep_0	
400-126904-3	MW-304	Total/NA	Water	PrecSep_0	
400-126904-5	MW-308	Total/NA	Water	PrecSep_0	
400-126904-6	DUP-02	Total/NA	Water	PrecSep_0	
400-126904-7	FB-02	Total/NA	Water	PrecSep_0	
400-126904-8	EB-02	Total/NA	Water	PrecSep_0	
MB 160-272045/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-272045/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-272045/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 275138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-4	MW-305	Total/NA	Water	PrecSep-21	
MB 160-275138/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-275138/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-275138/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 275155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126904-4	MW-305	Total/NA	Water	PrecSep_0	
MB 160-275155/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-275155/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-275155/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-272039/1-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272039

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06461	U	0.0613	0.0616	1.00	0.0971	pCi/L	09/27/16 16:54	10/19/16 07:27	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:27*	*1*

Lab Sample ID: LCS 160-272039/2-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272039

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	12.04		1.18	1.00	0.0699	pCi/L	108	68 - 137		

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

Lab Sample ID: LCSD 160-272039/3-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272039

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	11.51		1.13	1.00	0.0818	pCi/L	104	68 - 137	0.23	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.9*		*40 - 110*

Lab Sample ID: MB 160-275138/1-A
Matrix: Water
Analysis Batch: 279365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275138

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2612		0.158	0.160	1.00	0.220	pCi/L	10/19/16 10:32	11/15/16 07:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*10/19/16 10:32*	*11/15/16 07:20*	*1*

Lab Sample ID: LCS 160-275138/2-A
Matrix: Water
Analysis Batch: 279365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275138

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	13.76		1.50	1.00	0.282	pCi/L	124	68 - 137		

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

Lab Sample ID: LCS 160-275138/2-A
Matrix: Water
Analysis Batch: 279365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275138

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	71.8		40 - 110

Lab Sample ID: LCSD 160-275138/3-A
Matrix: Water
Analysis Batch: 279365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 275138

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	13.16		1.43	1.00	0.285	pCi/L	119	68 - 137	0.20	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	74.1		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-272045/1-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272045

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3184	U	0.281	0.282	1.00	0.453	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110	09/27/16 18:52	10/13/16 12:57	1
Y Carrier	87.5		40 - 110	09/27/16 18:52	10/13/16 12:57	1

Lab Sample ID: LCS 160-272045/2-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272045

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.4	14.24		1.51	1.00	0.363	pCi/L	99	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: LCSD 160-272045/3-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272045

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.4	14.68		1.55	1.00	0.347	pCi/L	102	56 - 140	0.14	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-272045/3-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272045

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	98.9		40 - 110
Y Carrier	92.3		40 - 110

Lab Sample ID: MB 160-275155/1-A
Matrix: Water
Analysis Batch: 279153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275155

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4562		0.293	0.296	1.00	0.451	pCi/L	10/19/16 11:44	11/14/16 16:10	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		40 - 110	10/19/16 11:44	11/14/16 16:10	1
Y Carrier	84.1		40 - 110	10/19/16 11:44	11/14/16 16:10	1

Lab Sample ID: LCS 160-275155/2-A
Matrix: Water
Analysis Batch: 279153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275155

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.3	14.82		1.65	1.00	0.468	pCi/L	104	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	71.8		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: LCSD 160-275155/3-A
Matrix: Water
Analysis Batch: 279153

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 275155

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.3	15.35		1.69	1.00	0.446	pCi/L	108	56 - 140	0.16	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	74.1		40 - 110
Y Carrier	87.5		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 Surles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Landfill 2	SSOW#:			

Analysis Requested

400-126904 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 - 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-300	9/7/16	1415	G	Water			X	X	X	X		
MW-303	9/8/16	0612	G	Water			X	X	X	X		
MW-304	9/7/16	1608	G	Water			X	X	X	X		
MW-305	9/7/16	1517	G	Water			X	X	X	X		
MW-308	9/7/16	1656	G	Water			X	X	X	X		
DUP-02	9/7/16	1315	G	W			X	X	X	X		
Field Blank-02	9/8/16	0620	G	W			X	X	X	X		
EQ Blank-02	9/8/16	0625	G	W			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
	Relinquished by:	9/8/16 0908	RDH		9-8-16 0908	
	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: 10c, 0.0°C, 1.7°C JR6

11/16/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126904-2
SDG Number: Landfill 2

Login Number: 126904
List Number: 1
Creator: Perez, Trina M

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	0.0°C, 1.0°C, 1.7°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126904-2
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-126904-2
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126926-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/18/2016 11:00:06 AM

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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 20
Chronicle 21
QC Association 26
QC Sample Results 31
Chain of Custody 40
Receipt Checklists 41
Certification Summary 42

Job ID: 400-126926-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126926-1

Metals
Method(s) 3005A: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: MW-206 (400-126926-7). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 322952 and analytical batch 323279 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 due to the nature of the sample matrix (interference; internal standards; targets over-range): MW-200 (400-126926-1), MW-201 (400-126926-2), MW-206 (400-126926-7) and DUPLICATE-03 (400-126926-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time due to results being greater than 0.2 g in the first analysis. The following samples were reanalyzed and filtered at a lower volume. MW-206 (400-126926-7).

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 325390 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 325386 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.

Detection Summary

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-126926-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0042	I	0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.078		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	36		2.0	0.84	mg/L	200		6020	Total Recoverable
Lead - DL	0.0021	I	0.0063	0.0018	mg/L	25		6020	Total Recoverable
Selenium - DL	0.016		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00045	I	0.0025	0.00043	mg/L	25		6020	Total Recoverable
Calcium - DL2	870		5.0	2.5	mg/L	100		6020	Total Recoverable
Mercury	0.0034		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	6000		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1900		100	30	mg/L	50		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	450		75	21	mg/L	15		SM 4500 SO4 E	Total/NA
Field pH	4.76				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-126926-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0093		0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.095		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	38		2.0	0.84	mg/L	200		6020	Total Recoverable
Cadmium - DL	0.015		0.013	0.0017	mg/L	25		6020	Total Recoverable
Calcium - DL	820		10	5.0	mg/L	200		6020	Total Recoverable
Cobalt - DL	0.0038	I	0.013	0.0020	mg/L	25		6020	Total Recoverable
Lithium - DL	0.035		0.025	0.016	mg/L	25		6020	Total Recoverable
Selenium - DL	0.018		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00053	I	0.0025	0.00043	mg/L	25		6020	Total Recoverable
Mercury	0.0027		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4400		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1800		80	24	mg/L	40		SM 4500 Cl- E	Total/NA
Fluoride	0.57		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	450		75	21	mg/L	15		SM 4500 SO4 E	Total/NA
Field pH	5.26				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-126926-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.016		0.013	0.0025	mg/L	25		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-126926-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	5.2		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - RA	0.26		0.050	0.021	mg/L	5		6020	Total Recoverable
Selenium - RA	0.00081	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Cobalt - RA2	0.00093	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	16		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.67				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-126926-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.044		0.013	0.0025	mg/L	25		6020	Total Recoverable
Calcium - DL	17		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - RA	0.70		0.050	0.021	mg/L	5		6020	Total Recoverable
Selenium - RA	0.0018		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00011	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Arsenic - RA2	0.00056	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Cobalt - RA2	0.0031		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000074	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	66		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.60				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-126926-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0065		0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.027		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	6.1		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium - DL	77		1.3	0.63	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.021		0.013	0.0020	mg/L	25		6020	Total Recoverable
Beryllium - RA	0.00073	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Lead - RA	0.0018		0.0013	0.00035	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-126926-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium - RA	0.0069		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00036	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	750		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	74		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	440		75	21	mg/L	15		SM 4500 SO4 E	Total/NA
Field pH	4.48				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-126926-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	22		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - RA	0.14		0.050	0.021	mg/L	5		6020	Total Recoverable
Selenium - RA	0.00034	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Barium - RA2	0.0048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	30		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.53				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-126926-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.011		0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.13		0.013	0.0025	mg/L	25		6020	Total Recoverable
Cadmium - DL	0.0026	I	0.013	0.0017	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0056	I	0.013	0.0020	mg/L	25		6020	Total Recoverable
Lead - DL	0.0092		0.0063	0.0018	mg/L	25		6020	Total Recoverable
Selenium - DL	0.018		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00088	I	0.0025	0.00043	mg/L	25		6020	Total Recoverable
Boron - DL3	66		20	8.4	mg/L	200		6020	Total Recoverable
Calcium - DL3	2000		100	50	mg/L	200		6020	Total Recoverable
Mercury	0.00081		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	9600	L	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	11000	Q	25	17	mg/L	1		SM 2540C	Total/NA
Chloride	4400		200	60	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	710		130	35	mg/L	25		SM 4500 SO4 E	Total/NA
Field pH	4.60				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: DUPLICATE-03 — Lab Sample ID: 400-126926-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.010		0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.13		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	67		2.0	0.84	mg/L	200		6020	Total Recoverable
Cadmium - DL	0.0025	I	0.013	0.0017	mg/L	25		6020	Total Recoverable
Calcium - DL	1900		10	5.0	mg/L	200		6020	Total Recoverable
Cobalt - DL	0.0054	I	0.013	0.0020	mg/L	25		6020	Total Recoverable
Lead - DL	0.0088		0.0063	0.0018	mg/L	25		6020	Total Recoverable
Selenium - DL	0.020		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00085	I	0.0025	0.00043	mg/L	25		6020	Total Recoverable
Mercury	0.00012	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	12000		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	4600		200	60	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	710		130	35	mg/L	25		SM 4500 SO4 E	Total/NA
Field pH	4.60				SU	1		Field Sampling	Total/NA

Client Sample ID: FIELD BLANK-03 — Lab Sample ID: 400-126926-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00027	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable

Client Sample ID: EQ BLANK-03 — Lab Sample ID: 400-126926-10

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

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

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 Plant Crist

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126926-1	MW-200	Water	09/08/16 12:23	09/08/16 13:36
400-126926-2	MW-201	Water	09/08/16 09:41	09/08/16 13:36
400-126926-3	MW-202	Water	09/08/16 08:00	09/08/16 13:36
400-126926-4	MW-203	Water	09/08/16 08:39	09/08/16 13:36
400-126926-5	MW-204	Water	09/08/16 10:03	09/08/16 13:36
400-126926-6	MW-205	Water	09/08/16 11:05	09/08/16 13:36
400-126926-7	MW-206	Water	09/08/16 10:25	09/08/16 13:36
400-126926-8	DUPLICATE-03	Water	09/08/16 09:25	09/08/16 13:36
400-126926-9	FIELD BLANK-03	Water	09/08/16 10:50	09/08/16 13:36
400-126926-10	EQ BLANK-03	Water	09/08/16 11:35	09/08/16 13:36

Client Sample ID: MW-200

Date Collected: 09/08/16 12:23
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		09/16/16 14:11	09/19/16 23:35	25
Arsenic	**0.0042**	**I**	0.0063	0.0023	mg/L		09/16/16 14:11	09/19/16 23:35	25
Barium	**0.078**		0.013	0.0025	mg/L		09/16/16 14:11	09/19/16 23:35	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		09/16/16 14:11	09/19/16 23:35	25
Boron	**36**		2.0	0.84	mg/L		09/16/16 14:11	09/21/16 17:16	200
Cadmium	0.0017	U	0.013	0.0017	mg/L		09/16/16 14:11	09/19/16 23:35	25
Chromium	0.0055	U	0.013	0.0055	mg/L		09/16/16 14:11	09/19/16 23:35	25
Cobalt	0.0020	U	0.013	0.0020	mg/L		09/16/16 14:11	09/19/16 23:35	25
Lead	**0.0021**	**I**	0.0063	0.0018	mg/L		09/16/16 14:11	09/19/16 23:35	25
Lithium	0.016	U	0.025	0.016	mg/L		09/16/16 14:11	09/19/16 23:35	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		09/16/16 14:11	09/19/16 23:35	25
Selenium	**0.016**		0.0063	0.0012	mg/L		09/16/16 14:11	09/19/16 23:35	25
Thallium	**0.00045**	**I**	0.0025	0.00043	mg/L		09/16/16 14:11	09/19/16 23:35	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**870**		5.0	2.5	mg/L		09/16/16 14:11	09/19/16 23:58	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0034**		0.00020	0.000070	mg/L		09/13/16 09:59	09/16/16 14:08	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6000**		25	17	mg/L			09/14/16 20:00	1
Chloride	**1900**		100	30	mg/L			09/15/16 15:13	50
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			09/29/16 17:42	1
Sulfate	**450**		75	21	mg/L			09/15/16 15:11	15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.76**				SU			09/08/16 12:23	1

Client Sample ID: MW-201

Date Collected: 09/08/16 09:41
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		09/16/16 14:11	09/20/16 00:02	25
Arsenic	**0.0093**		0.0063	0.0023	mg/L		09/16/16 14:11	09/20/16 00:02	25
Barium	**0.095**		0.013	0.0025	mg/L		09/16/16 14:11	09/20/16 00:02	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		09/16/16 14:11	09/20/16 00:02	25
Boron	**38**		2.0	0.84	mg/L		09/16/16 14:11	09/21/16 17:21	200
Cadmium	**0.015**		0.013	0.0017	mg/L		09/16/16 14:11	09/20/16 00:02	25
Calcium	**820**		10	5.0	mg/L		09/16/16 14:11	09/21/16 17:21	200
Chromium	0.0055	U	0.013	0.0055	mg/L		09/16/16 14:11	09/20/16 00:02	25
Cobalt	**0.0038**	**I**	0.013	0.0020	mg/L		09/16/16 14:11	09/20/16 00:02	25
Lead	0.0018	U	0.0063	0.0018	mg/L		09/16/16 14:11	09/20/16 00:02	25
Lithium	**0.035**		0.025	0.016	mg/L		09/16/16 14:11	09/20/16 00:02	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		09/16/16 14:11	09/20/16 00:02	25
Selenium	**0.018**		0.0063	0.0012	mg/L		09/16/16 14:11	09/20/16 00:02	25
Thallium	**0.00053**	**I**	0.0025	0.00043	mg/L		09/16/16 14:11	09/20/16 00:02	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0027**		0.00020	0.000070	mg/L		09/13/16 09:59	09/16/16 14:10	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4400**		25	17	mg/L			09/14/16 20:00	1
Chloride	**1800**		80	24	mg/L			10/04/16 12:16	40
Fluoride	**0.57**		0.10	0.032	mg/L			09/29/16 17:44	1
Sulfate	**450**		75	21	mg/L			10/04/16 11:22	15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.26**				SU			09/08/16 09:41	1

Client Sample ID: MW-202
Date Collected: 09/08/16 08:00
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-3
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.016**		0.013	0.0025	mg/L		09/16/16 14:11	09/20/16 00:25	25
Calcium	**5.2**		1.3	0.63	mg/L		09/16/16 14:11	09/20/16 00:25	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/16/16 14:11	09/21/16 17:25	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/16/16 14:11	09/21/16 17:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:25	5
Boron	**0.26**		0.050	0.021	mg/L		09/16/16 14:11	09/21/16 17:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/21/16 17:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/16/16 14:11	09/21/16 17:25	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/21/16 17:25	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/21/16 17:25	5
Selenium	**0.00081**	**I**	0.0013	0.00024	mg/L		09/16/16 14:11	09/21/16 17:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/16/16 14:11	09/21/16 17:25	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.00093**	**I**	0.0025	0.00040	mg/L		09/16/16 14:11	09/23/16 13:59	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		09/13/16 09:59	09/16/16 14:12	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**68**		5.0	3.4	mg/L			09/14/16 20:00	1
Chloride	**13**		2.0	0.60	mg/L			09/15/16 12:06	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/29/16 17:52	1
Sulfate	**16**		5.0	1.4	mg/L			10/05/16 17:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.67**				SU			09/08/16 08:00	1

Client Sample ID: MW-203
Date Collected: 09/08/16 08:39
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-4
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.044**		0.013	0.0025	mg/L		09/16/16 14:11	09/20/16 00:29	25
Calcium	**17**		1.3	0.63	mg/L		09/16/16 14:11	09/20/16 00:29	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/16/16 14:11	09/21/16 17:30	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:30	5
Boron	**0.70**		0.050	0.021	mg/L		09/16/16 14:11	09/21/16 17:30	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:30	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/21/16 17:30	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/16/16 14:11	09/21/16 17:30	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/21/16 17:30	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/21/16 17:30	5
Selenium	**0.0018**		0.0013	0.00024	mg/L		09/16/16 14:11	09/21/16 17:30	5
Thallium	**0.00011**	**I**	0.00050	0.000085	mg/L		09/16/16 14:11	09/21/16 17:30	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00056**	**I**	0.0013	0.00046	mg/L		09/16/16 14:11	09/23/16 14:04	5
Cobalt	**0.0031**		0.0025	0.00040	mg/L		09/16/16 14:11	09/23/16 14:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000074**	**I**	0.00020	0.000070	mg/L		09/13/16 09:59	09/16/16 14:14	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**140**		5.0	3.4	mg/L			09/14/16 20:00	1
Chloride	**12**		2.0	0.60	mg/L			09/15/16 12:06	1
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			09/29/16 17:31	1
Sulfate	**66**		10	2.8	mg/L			10/05/16 17:58	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.60**				SU			09/08/16 08:39	1

Client Sample ID: MW-204

Date Collected: 09/08/16 10:03
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0065**		0.0063	0.0023	mg/L		09/16/16 14:11	09/20/16 00:34	25
Barium	**0.027**		0.013	0.0025	mg/L		09/16/16 14:11	09/20/16 00:34	25
Boron	**6.1**		0.25	0.11	mg/L		09/16/16 14:11	09/20/16 00:34	25
Calcium	**77**		1.3	0.63	mg/L		09/16/16 14:11	09/20/16 00:34	25
Cobalt	**0.021**		0.013	0.0020	mg/L		09/16/16 14:11	09/20/16 00:34	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/16/16 14:11	09/21/16 17:34	5
Beryllium	**0.00073**	**I**	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:34	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:34	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/21/16 17:34	5
Lead	**0.0018**		0.0013	0.00035	mg/L		09/16/16 14:11	09/21/16 17:34	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/21/16 17:34	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/21/16 17:34	5
Selenium	**0.0069**		0.0013	0.00024	mg/L		09/16/16 14:11	09/21/16 17:34	5
Thallium	**0.00036**	**I**	0.00050	0.000085	mg/L		09/16/16 14:11	09/21/16 17:34	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		09/13/16 09:59	09/16/16 14:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**750**		5.0	3.4	mg/L			09/14/16 20:00	1
Chloride	**74**		10	3.0	mg/L			09/15/16 13:53	5
Fluoride	**0.23**		0.10	0.032	mg/L			09/29/16 18:01	1
Sulfate	**440**		75	21	mg/L			10/05/16 18:22	15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.48**				SU			09/08/16 10:03	1

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205
Date Collected: 09/08/16 11:05
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-6
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**22**		1.3	0.63	mg/L		09/16/16 14:11	09/20/16 00:38	25

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/16/16 14:11	09/21/16 17:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/16/16 14:11	09/21/16 17:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:39	5
Boron	**0.14**		0.050	0.021	mg/L		09/16/16 14:11	09/21/16 17:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/21/16 17:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/21/16 17:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/16/16 14:11	09/21/16 17:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/21/16 17:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/21/16 17:39	5
Selenium	**0.00034**	**I**	0.0013	0.00024	mg/L		09/16/16 14:11	09/21/16 17:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/16/16 14:11	09/21/16 17:39	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.0048**		0.0025	0.00049	mg/L		09/16/16 14:11	09/23/16 14:09	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/16/16 14:11	09/23/16 14:09	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		09/13/16 09:59	09/16/16 14:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**66**		5.0	3.4	mg/L			09/14/16 20:00	1
Chloride	**3.0**		2.0	0.60	mg/L			09/15/16 12:06	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/29/16 18:04	1
Sulfate	**30**		5.0	1.4	mg/L			10/05/16 17:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.53**				SU			09/08/16 11:05	1

Client Sample ID: MW-206

Date Collected: 09/08/16 10:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		09/16/16 14:11	09/20/16 00:43	25
Arsenic	**0.011**		0.0063	0.0023	mg/L		09/16/16 14:11	09/20/16 00:43	25
Barium	**0.13**		0.013	0.0025	mg/L		09/16/16 14:11	09/20/16 00:43	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		09/16/16 14:11	09/20/16 00:43	25
Cadmium	**0.0026**	**I**	0.013	0.0017	mg/L		09/16/16 14:11	09/20/16 00:43	25
Chromium	0.0055	U	0.013	0.0055	mg/L		09/16/16 14:11	09/20/16 00:43	25
Cobalt	**0.0056**	**I**	0.013	0.0020	mg/L		09/16/16 14:11	09/20/16 00:43	25
Lead	**0.0092**		0.0063	0.0018	mg/L		09/16/16 14:11	09/20/16 00:43	25
Lithium	0.016	U	0.025	0.016	mg/L		09/16/16 14:11	09/20/16 00:43	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		09/16/16 14:11	09/20/16 00:43	25
Selenium	**0.018**		0.0063	0.0012	mg/L		09/16/16 14:11	09/20/16 00:43	25
Thallium	**0.00088**	**I**	0.0025	0.00043	mg/L		09/16/16 14:11	09/20/16 00:43	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL3

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**66**		20	8.4	mg/L		09/16/16 14:11	09/20/16 00:52	200
Calcium	**2000**		100	50	mg/L		09/16/16 14:11	09/20/16 00:52	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00081**		0.00020	0.000070	mg/L		09/13/16 09:59	09/16/16 14:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9600**	**L**	5.0	3.4	mg/L			09/14/16 20:00	1
Total Dissolved Solids	**11000**	**Q**	25	17	mg/L			10/13/16 16:17	1
Chloride	**4400**		200	60	mg/L			09/15/16 13:53	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			09/29/16 18:07	1
Sulfate	**710**		130	35	mg/L			10/05/16 18:41	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.60**				SU			09/08/16 10:25	1

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: DUPLICATE-03
Date Collected: 09/08/16 09:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-8
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		09/16/16 14:11	09/20/16 00:56	25
Arsenic	**0.010**		0.0063	0.0023	mg/L		09/16/16 14:11	09/20/16 00:56	25
Barium	**0.13**		0.013	0.0025	mg/L		09/16/16 14:11	09/20/16 00:56	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		09/16/16 14:11	09/20/16 00:56	25
Boron	**67**		2.0	0.84	mg/L		09/16/16 14:11	09/21/16 17:43	200
Cadmium	**0.0025**	**I**	0.013	0.0017	mg/L		09/16/16 14:11	09/20/16 00:56	25
Calcium	**1900**		10	5.0	mg/L		09/16/16 14:11	09/21/16 17:43	200
Chromium	0.0055	U	0.013	0.0055	mg/L		09/16/16 14:11	09/20/16 00:56	25
Cobalt	**0.0054**	**I**	0.013	0.0020	mg/L		09/16/16 14:11	09/20/16 00:56	25
Lead	**0.0088**		0.0063	0.0018	mg/L		09/16/16 14:11	09/20/16 00:56	25
Lithium	0.016	U	0.025	0.016	mg/L		09/16/16 14:11	09/20/16 00:56	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		09/16/16 14:11	09/20/16 00:56	25
Selenium	**0.020**		0.0063	0.0012	mg/L		09/16/16 14:11	09/20/16 00:56	25
Thallium	**0.00085**	**I**	0.0025	0.00043	mg/L		09/16/16 14:11	09/20/16 00:56	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00012**	**I**	0.00020	0.000070	mg/L		09/13/16 09:59	09/16/16 14:19	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12000**		25	17	mg/L			09/15/16 15:25	1
Chloride	**4600**		200	60	mg/L			10/04/16 16:20	100
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			09/29/16 18:11	1
Sulfate	**710**		130	35	mg/L			10/04/16 12:21	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.60**				SU			09/08/16 09:25	1

Client Sample ID: FIELD BLANK-03

Date Collected: 09/08/16 10:50
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-9

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		09/16/16 14:11	09/19/16 22:28	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/16/16 14:11	09/19/16 22:28	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/16/16 14:11	09/19/16 22:28	5
Boron	0.021	U	0.050	0.021	mg/L		09/16/16 14:11	09/19/16 22:28	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/19/16 22:28	5
Calcium	0.13	U	0.25	0.13	mg/L		09/16/16 14:11	09/19/16 22:28	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/19/16 22:28	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/16/16 14:11	09/19/16 22:28	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/16/16 14:11	09/19/16 22:28	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/19/16 22:28	5
Selenium	**0.00027**	**I**	0.0013	0.00024	mg/L		09/16/16 14:11	09/19/16 22:28	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/16/16 14:11	09/19/16 22:28	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/20/16 14:19	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/20/16 14:19	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		09/13/16 09:59	09/16/16 14:30	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			09/15/16 15:25	1
Chloride	0.60	U	2.0	0.60	mg/L			10/04/16 10:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/29/16 18:13	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/04/16 10:11	1

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: EQ BLANK-03

Date Collected: 09/08/16 11:35
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-10

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		09/16/16 14:11	09/19/16 22:32	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/16/16 14:11	09/19/16 22:32	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/16/16 14:11	09/19/16 22:32	5
Boron	0.021	U	0.050	0.021	mg/L		09/16/16 14:11	09/19/16 22:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/19/16 22:32	5
Calcium	0.13	U	0.25	0.13	mg/L		09/16/16 14:11	09/19/16 22:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/19/16 22:32	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/16/16 14:11	09/19/16 22:32	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/16/16 14:11	09/19/16 22:32	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/19/16 22:32	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/16/16 14:11	09/19/16 22:32	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/16/16 14:11	09/19/16 22:32	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/20/16 14:24	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/20/16 14:24	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		09/13/16 09:59	09/16/16 14:21	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			09/15/16 15:25	1
Chloride	0.60	U	2.0	0.60	mg/L			09/13/16 14:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			09/29/16 18:15	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/05/16 17:09	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

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.
L	Off-scale high. Actual value is known to be greater than the value given.
Q	Sample held beyond the accepted holding time.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-200

Lab Sample ID: 400-126926-1

Date Collected: 09/08/16 12:23

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/19/16 23:35	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL2		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	100	323279	09/19/16 23:58	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	323826	09/21/16 17:16	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	322813	09/15/16 15:13	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 17:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	322815	09/15/16 15:11	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 12:23	BWS	TAL PEN

Client Sample ID: MW-201

Lab Sample ID: 400-126926-2

Date Collected: 09/08/16 09:41

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:02	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	323826	09/21/16 17:21	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		40	325390	10/04/16 12:16	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 17:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	325386	10/04/16 11:22	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 09:41	BWS	TAL PEN

Client Sample ID: MW-202

Lab Sample ID: 400-126926-3

Date Collected: 09/08/16 08:00

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:25	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	323826	09/21/16 17:25	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA2		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA2	5	324029	09/23/16 13:59	RJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202

Date Collected: 09/08/16 08:00
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322813	09/15/16 12:06	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 17:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	325593	10/05/16 17:09	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 08:00	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 09/08/16 08:39
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:29	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	323826	09/21/16 17:30	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA2		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA2	5	324029	09/23/16 14:04	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322813	09/15/16 12:06	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 17:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	325593	10/05/16 17:58	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 08:39	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 09/08/16 10:03
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:34	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	323826	09/21/16 17:34	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	322813	09/15/16 13:53	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 18:01	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	325593	10/05/16 18:22	SEH	TAL PEN

Client Sample ID: MW-204

Date Collected: 09/08/16 10:03
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 10:03	BWS	TAL PEN

Client Sample ID: MW-205

Date Collected: 09/08/16 11:05
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:38	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	323826	09/21/16 17:39	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA2		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA2	5	324029	09/23/16 14:09	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322813	09/15/16 12:06	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 18:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	325593	10/05/16 17:09	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 11:05	BWS	TAL PEN

Client Sample ID: MW-206

Date Collected: 09/08/16 10:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:43	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL3		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL3	200	323279	09/20/16 00:52	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322606	09/14/16 20:00	JLB	TAL PEN
Total/NA	Analysis	SM 2540C		1	326661	10/13/16 16:17	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	322813	09/15/16 13:53	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 18:07	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		25	325593	10/05/16 18:41	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 10:25	BWS	TAL PEN

Client Sample ID: DUPLICATE-03

Lab Sample ID: 400-126926-8

Date Collected: 09/08/16 09:25

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	323279	09/20/16 00:56	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	323826	09/21/16 17:43	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322728	09/15/16 15:25	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	325390	10/04/16 16:20	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 18:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		25	325386	10/04/16 12:21	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	326079	09/08/16 09:25	BWS	TAL PEN

Client Sample ID: FIELD BLANK-03

Lab Sample ID: 400-126926-9

Date Collected: 09/08/16 10:50

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 22:28	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	323471	09/20/16 14:19	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322728	09/15/16 15:25	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	325390	10/04/16 10:15	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 18:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	325386	10/04/16 10:11	SEH	TAL PEN

Client Sample ID: EQ BLANK-03

Lab Sample ID: 400-126926-10

Date Collected: 09/08/16 11:35

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	323279	09/19/16 22:32	RJB	TAL PEN
Total Recoverable	Prep	3005A	RA		322952	09/16/16 14:11	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	323471	09/20/16 14:24	RJB	TAL PEN
Total/NA	Prep	7470A			322329	09/13/16 09:59	JAP	TAL PEN
Total/NA	Analysis	7470A		1	322956	09/16/16 14:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	322728	09/15/16 15:25	JLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	322524	09/13/16 14:33	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	324737	09/29/16 18:15	SLT	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Client Sample ID: EQ BLANK-03

Date Collected: 09/08/16 11:35
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-10

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		1	325593	10/05/16 17:09	SEH	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 322329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	7470A	
400-126926-2	MW-201	Total/NA	Water	7470A	
400-126926-3	MW-202	Total/NA	Water	7470A	
400-126926-4	MW-203	Total/NA	Water	7470A	
400-126926-5	MW-204	Total/NA	Water	7470A	
400-126926-6	MW-205	Total/NA	Water	7470A	
400-126926-7	MW-206	Total/NA	Water	7470A	
400-126926-8	DUPLICATE-03	Total/NA	Water	7470A	
400-126926-9	FIELD BLANK-03	Total/NA	Water	7470A	
400-126926-10	EQ BLANK-03	Total/NA	Water	7470A	
MB 400-322329/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-322329/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-127048-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-127048-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 322952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-126926-1 - DL2	MW-200	Total Recoverable	Water	3005A	
400-126926-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-126926-3 - RA	MW-202	Total Recoverable	Water	3005A	
400-126926-3 - RA2	MW-202	Total Recoverable	Water	3005A	
400-126926-3 - DL	MW-202	Total Recoverable	Water	3005A	
400-126926-4 - RA	MW-203	Total Recoverable	Water	3005A	
400-126926-4 - RA2	MW-203	Total Recoverable	Water	3005A	
400-126926-4 - DL	MW-203	Total Recoverable	Water	3005A	
400-126926-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-126926-5 - RA	MW-204	Total Recoverable	Water	3005A	
400-126926-6 - RA	MW-205	Total Recoverable	Water	3005A	
400-126926-6 - DL	MW-205	Total Recoverable	Water	3005A	
400-126926-6 - RA2	MW-205	Total Recoverable	Water	3005A	
400-126926-7 - DL3	MW-206	Total Recoverable	Water	3005A	
400-126926-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-126926-8 - DL	DUPLICATE-03	Total Recoverable	Water	3005A	
400-126926-9 - RA	FIELD BLANK-03	Total Recoverable	Water	3005A	
400-126926-9	FIELD BLANK-03	Total Recoverable	Water	3005A	
400-126926-10 - RA	EQ BLANK-03	Total Recoverable	Water	3005A	
400-126926-10	EQ BLANK-03	Total Recoverable	Water	3005A	
MB 400-322952/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-322952/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-126926-1 MS	MW-200	Total Recoverable	Water	3005A	
400-126926-1 MSD	MW-200	Total Recoverable	Water	3005A	

Analysis Batch: 322956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	7470A	322329
400-126926-2	MW-201	Total/NA	Water	7470A	322329
400-126926-3	MW-202	Total/NA	Water	7470A	322329
400-126926-4	MW-203	Total/NA	Water	7470A	322329
400-126926-5	MW-204	Total/NA	Water	7470A	322329
400-126926-6	MW-205	Total/NA	Water	7470A	322329

Metals (Continued)

Analysis Batch: 322956 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-7	MW-206	Total/NA	Water	7470A	322329
400-126926-8	DUPLICATE-03	Total/NA	Water	7470A	322329
400-126926-9	FIELD BLANK-03	Total/NA	Water	7470A	322329
400-126926-10	EQ BLANK-03	Total/NA	Water	7470A	322329
MB 400-322329/14-A	Method Blank	Total/NA	Water	7470A	322329
LCS 400-322329/15-A	Lab Control Sample	Total/NA	Water	7470A	322329
400-127048-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	322329
400-127048-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	322329

Analysis Batch: 323279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1 - DL	MW-200	Total Recoverable	Water	6020	322952
400-126926-1 - DL2	MW-200	Total Recoverable	Water	6020	322952
400-126926-2 - DL	MW-201	Total Recoverable	Water	6020	322952
400-126926-3 - DL	MW-202	Total Recoverable	Water	6020	322952
400-126926-4 - DL	MW-203	Total Recoverable	Water	6020	322952
400-126926-5 - DL	MW-204	Total Recoverable	Water	6020	322952
400-126926-6 - DL	MW-205	Total Recoverable	Water	6020	322952
400-126926-7 - DL	MW-206	Total Recoverable	Water	6020	322952
400-126926-7 - DL3	MW-206	Total Recoverable	Water	6020	322952
400-126926-8 - DL	DUPLICATE-03	Total Recoverable	Water	6020	322952
400-126926-9	FIELD BLANK-03	Total Recoverable	Water	6020	322952
400-126926-10	EQ BLANK-03	Total Recoverable	Water	6020	322952
MB 400-322952/1-A ^5	Method Blank	Total Recoverable	Water	6020	322952
LCS 400-322952/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	322952
400-126926-1 MS	MW-200	Total Recoverable	Water	6020	322952
400-126926-1 MSD	MW-200	Total Recoverable	Water	6020	322952

Analysis Batch: 323471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-9 - RA	FIELD BLANK-03	Total Recoverable	Water	6020	322952
400-126926-10 - RA	EQ BLANK-03	Total Recoverable	Water	6020	322952
MB 400-322952/1-A ^5	Method Blank	Total Recoverable	Water	6020	322952
LCS 400-322952/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	322952

Analysis Batch: 323826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1 - DL	MW-200	Total Recoverable	Water	6020	322952
400-126926-2 - DL	MW-201	Total Recoverable	Water	6020	322952
400-126926-3 - RA	MW-202	Total Recoverable	Water	6020	322952
400-126926-4 - RA	MW-203	Total Recoverable	Water	6020	322952
400-126926-5 - RA	MW-204	Total Recoverable	Water	6020	322952
400-126926-6 - RA	MW-205	Total Recoverable	Water	6020	322952
400-126926-8 - DL	DUPLICATE-03	Total Recoverable	Water	6020	322952

Analysis Batch: 324029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-3 - RA2	MW-202	Total Recoverable	Water	6020	322952
400-126926-4 - RA2	MW-203	Total Recoverable	Water	6020	322952
400-126926-6 - RA2	MW-205	Total Recoverable	Water	6020	322952

General Chemistry

Analysis Batch: 322524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-10	EQ BLANK-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-322524/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-322524/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-322524/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-127053-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-127053-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	SM 2540C	
400-126926-2	MW-201	Total/NA	Water	SM 2540C	
400-126926-3	MW-202	Total/NA	Water	SM 2540C	
400-126926-4	MW-203	Total/NA	Water	SM 2540C	
400-126926-5	MW-204	Total/NA	Water	SM 2540C	
400-126926-6	MW-205	Total/NA	Water	SM 2540C	
400-126926-7	MW-206	Total/NA	Water	SM 2540C	
MB 400-322606/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322606/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126926-3 DU	MW-202	Total/NA	Water	SM 2540C	

Analysis Batch: 322709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322709/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-322709/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-322709/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 322718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322718/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-322718/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-322718/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 322728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-8	DUPLICATE-03	Total/NA	Water	SM 2540C	
400-126926-9	FIELD BLANK-03	Total/NA	Water	SM 2540C	
400-126926-10	EQ BLANK-03	Total/NA	Water	SM 2540C	
MB 400-322728/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322728/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126926-9 DU	FIELD BLANK-03	Total/NA	Water	SM 2540C	

Analysis Batch: 322813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-126926-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-126926-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-126926-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-126926-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-126926-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-126904-A-7 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-126904-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

QC Association Summary

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Analysis Batch: 322815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-126904-A-7 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-126904-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 322911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-322911/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-322911/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-126926-7 DU	MW-206	Total/NA	Water	SM 2540C	

Analysis Batch: 324737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	SM 4500 F C	
400-126926-2	MW-201	Total/NA	Water	SM 4500 F C	
400-126926-3	MW-202	Total/NA	Water	SM 4500 F C	
400-126926-4	MW-203	Total/NA	Water	SM 4500 F C	
400-126926-5	MW-204	Total/NA	Water	SM 4500 F C	
400-126926-6	MW-205	Total/NA	Water	SM 4500 F C	
400-126926-7	MW-206	Total/NA	Water	SM 4500 F C	
400-126926-8	DUPLICATE-03	Total/NA	Water	SM 4500 F C	
400-126926-9	FIELD BLANK-03	Total/NA	Water	SM 4500 F C	
400-126926-10	EQ BLANK-03	Total/NA	Water	SM 4500 F C	
MB 400-324737/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-324737/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-76002-J-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-76002-J-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-126926-3 DU	MW-202	Total/NA	Water	SM 4500 F C	

Analysis Batch: 325386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-126926-8	DUPLICATE-03	Total/NA	Water	SM 4500 SO4 E	
400-126926-9	FIELD BLANK-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-325386/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-325386/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-325386/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-127936-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-127936-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 325390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-126926-8	DUPLICATE-03	Total/NA	Water	SM 4500 Cl- E	
400-126926-9	FIELD BLANK-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-325390/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-325390/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-325390/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-127936-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-127936-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 325593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-3	MW-202	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 325593 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-126926-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-126926-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-126926-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-126926-10	EQ BLANK-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-325593/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-325593/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-325593/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-126926-10 MS	EQ BLANK-03	Total/NA	Water	SM 4500 SO4 E	
400-126926-10 MSD	EQ BLANK-03	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 326661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-7	MW-206	Total/NA	Water	SM 2540C	
MB 400-326661/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-326661/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-128454-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Field Service / Mobile Lab

Analysis Batch: 326079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	Field Sampling	
400-126926-2	MW-201	Total/NA	Water	Field Sampling	
400-126926-3	MW-202	Total/NA	Water	Field Sampling	
400-126926-4	MW-203	Total/NA	Water	Field Sampling	
400-126926-5	MW-204	Total/NA	Water	Field Sampling	
400-126926-6	MW-205	Total/NA	Water	Field Sampling	
400-126926-7	MW-206	Total/NA	Water	Field Sampling	
400-126926-8	DUPLICATE-03	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-322952/1-A ^5
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 322952

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		09/16/16 14:11	09/19/16 22:19	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		09/16/16 14:11	09/19/16 22:19	5
Barium	0.00049	U	0.0025	0.00049	mg/L		09/16/16 14:11	09/19/16 22:19	5
Boron	0.021	U	0.050	0.021	mg/L		09/16/16 14:11	09/19/16 22:19	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/19/16 22:19	5
Calcium	0.13	U	0.25	0.13	mg/L		09/16/16 14:11	09/19/16 22:19	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		09/16/16 14:11	09/19/16 22:19	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		09/16/16 14:11	09/19/16 22:19	5
Lead	0.00035	U	0.0013	0.00035	mg/L		09/16/16 14:11	09/19/16 22:19	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		09/16/16 14:11	09/19/16 22:19	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		09/16/16 14:11	09/19/16 22:19	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		09/16/16 14:11	09/19/16 22:19	5

Lab Sample ID: MB 400-322952/1-A ^5
Matrix: Water
Analysis Batch: 323471

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 322952

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		09/16/16 14:11	09/20/16 13:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		09/16/16 14:11	09/20/16 13:38	5

Lab Sample ID: LCS 400-322952/2-A ^1
Matrix: Water
Analysis Batch: 323279

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0518		mg/L		104	80 - 120
Barium	0.0500	0.0520		mg/L		104	80 - 120
Boron	0.100	0.108		mg/L		108	80 - 120
Cadmium	0.0500	0.0477		mg/L		95	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Chromium	0.0500	0.0490		mg/L		98	80 - 120
Cobalt	0.0500	0.0512		mg/L		102	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Molybdenum	0.0500	0.0481		mg/L		96	80 - 120
Selenium	0.0500	0.0487		mg/L		97	80 - 120
Thallium	0.0100	0.00953		mg/L		95	80 - 120

Lab Sample ID: LCS 400-322952/2-A ^1
Matrix: Water
Analysis Batch: 323471

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 322952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0461		mg/L		92	80 - 120
Lithium	0.0500	0.0463		mg/L		93	80 - 120

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

Lab Sample ID: 400-126926-1 MS
Matrix: Water
Analysis Batch: 323279

Client Sample ID: MW-200
Prep Type: Total Recoverable
Prep Batch: 322952

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0050	U	0.0500	0.0634	J3	mg/L		127	75 - 125
Arsenic	0.0042	I	0.0500	0.0587		mg/L		109	75 - 125
Barium	0.078		0.0500	0.137		mg/L		119	75 - 125
Beryllium	0.0017	U	0.0500	0.0483		mg/L		97	75 - 125
Cadmium	0.0017	U	0.0500	0.0475		mg/L		95	75 - 125
Chromium	0.0055	U	0.0500	0.0490		mg/L		98	75 - 125
Cobalt	0.0020	U	0.0500	0.0546		mg/L		109	75 - 125
Lead	0.0021	I	0.0500	0.0657	J3	mg/L		127	75 - 125
Lithium	0.016	U	0.0500	0.0519		mg/L		104	75 - 125
Molybdenum	0.0043	U	0.0500	0.0513	I	mg/L		103	75 - 125
Selenium	0.016		0.0500	0.0698		mg/L		108	75 - 125
Thallium	0.00045	I	0.0100	0.0127		mg/L		122	75 - 125

Lab Sample ID: 400-126926-1 MSD
Matrix: Water
Analysis Batch: 323279

Client Sample ID: MW-200
Prep Type: Total Recoverable
Prep Batch: 322952

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0050	U	0.0500	0.0566		mg/L		113	75 - 125	11	20
Arsenic	0.0042	I	0.0500	0.0571		mg/L		106	75 - 125	3	20
Barium	0.078		0.0500	0.134		mg/L		113	75 - 125	2	20
Beryllium	0.0017	U	0.0500	0.0502		mg/L		100	75 - 125	4	20
Cadmium	0.0017	U	0.0500	0.0490		mg/L		98	75 - 125	3	20
Chromium	0.0055	U	0.0500	0.0501		mg/L		100	75 - 125	2	20
Cobalt	0.0020	U	0.0500	0.0551		mg/L		110	75 - 125	1	20
Lead	0.0021	I	0.0500	0.0541		mg/L		104	75 - 125	19	20
Lithium	0.016	U	0.0500	0.0821	J3	mg/L		164	75 - 125	45	20
Molybdenum	0.0043	U	0.0500	0.0501	I	mg/L		100	75 - 125	2	20
Selenium	0.016		0.0500	0.0687		mg/L		106	75 - 125	2	20
Thallium	0.00045	I	0.0100	0.0102	J3	mg/L		97	75 - 125	22	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-322329/14-A
Matrix: Water
Analysis Batch: 322956

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322329

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		09/13/16 08:48	09/16/16 13:52	1

Lab Sample ID: LCS 400-322329/15-A
Matrix: Water
Analysis Batch: 322956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322329

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00105		mg/L		104	80 - 120

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

Lab Sample ID: 400-127048-D-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322956 — **Prep Batch: 322329**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00209		mg/L		104	80 - 120

Lab Sample ID: 400-127048-D-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322956 — **Prep Batch: 322329**

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	0.00198		mg/L		99	80 - 120	5	20

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

Lab Sample ID: MB 400-322606/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322606

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			09/14/16 20:00	1

Lab Sample ID: LCS 400-322606/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	272		mg/L		93	78 - 122

Lab Sample ID: 400-126926-3 DU — **Client Sample ID: MW-202**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322606

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	68		66.0		mg/L		3	5

Lab Sample ID: MB 400-322728/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322728

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			09/15/16 15:25	1

Lab Sample ID: LCS 400-322728/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322728

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	242		mg/L		83	78 - 122

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

Lab Sample ID: 400-126926-9 DU
Matrix: Water
Analysis Batch: 322728

Client Sample ID: FIELD BLANK-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3.4	U	3.4	U	mg/L		NC	5

Lab Sample ID: MB 400-322911/1
Matrix: Water
Analysis Batch: 322911

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			09/16/16 16:50	1

Lab Sample ID: LCS 400-322911/2
Matrix: Water
Analysis Batch: 322911

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	258		mg/L		88	78 - 122

Lab Sample ID: 400-126926-7 DU
Matrix: Water
Analysis Batch: 322911

Client Sample ID: MW-206
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	5200	Q	5230		mg/L		0.6	5

Lab Sample ID: MB 400-326661/1
Matrix: Water
Analysis Batch: 326661

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			10/13/16 16:17	1

Lab Sample ID: LCS 400-326661/2
Matrix: Water
Analysis Batch: 326661

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	264		mg/L		90	78 - 122

Lab Sample ID: 400-128454-A-1 DU
Matrix: Water
Analysis Batch: 326661

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	8.0		8.00		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-322524/6
Matrix: Water
Analysis Batch: 322524

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/13/16 12:41	1

Lab Sample ID: LCS 400-322524/7
Matrix: Water
Analysis Batch: 322524

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	30.0		mg/L		100	90 - 110

Lab Sample ID: MRL 400-322524/3
Matrix: Water
Analysis Batch: 322524

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	1.30	I	mg/L		65	50 - 150

Lab Sample ID: 400-127053-F-1 MS
Matrix: Water
Analysis Batch: 322524

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	7.46		10.0	18.7		mg/L		112	73 - 120

Lab Sample ID: 400-127053-F-1 MSD
Matrix: Water
Analysis Batch: 322524

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	7.46		10.0	18.9		mg/L		114	73 - 120	1	8

Lab Sample ID: MB 400-322709/6
Matrix: Water
Analysis Batch: 322709

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			09/15/16 08:29	1

Lab Sample ID: LCS 400-322709/7
Matrix: Water
Analysis Batch: 322709

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	29.4		mg/L		98	90 - 110

Lab Sample ID: MRL 400-322709/3
Matrix: Water
Analysis Batch: 322709

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

QC Sample Results

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Lab Sample ID: 400-126904-A-7 MS
Matrix: Water
Analysis Batch: 322813

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	0.60	U	10.0	10.6		mg/L		106	73 - 120		

Lab Sample ID: 400-126904-A-7 MSD
Matrix: Water
Analysis Batch: 322813

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	0.60	U	10.0	10.4		mg/L		104	73 - 120	2	8

Lab Sample ID: MB 400-325390/6
Matrix: Water
Analysis Batch: 325390

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			10/04/16 08:39	1

Lab Sample ID: LCS 400-325390/7
Matrix: Water
Analysis Batch: 325390

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	29.9		mg/L		100	90 - 110

Lab Sample ID: MRL 400-325390/3
Matrix: Water
Analysis Batch: 325390

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	1.46	I	mg/L		73	50 - 150

Lab Sample ID: 400-127936-A-2 MS
Matrix: Water
Analysis Batch: 325390

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	16000		4000	16500	J3	mg/L		3	73 - 120

Lab Sample ID: 400-127936-A-2 MSD
Matrix: Water
Analysis Batch: 325390

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	16000		4000	16400	J3	mg/L		-0.4	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-324737/3
Matrix: Water
Analysis Batch: 324737

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			09/29/16 17:06	1

Lab Sample ID: LCS 400-324737/4
Matrix: Water
Analysis Batch: 324737

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	4.17		mg/L		104	90 - 110

Lab Sample ID: 660-76002-J-2 MS
Matrix: Water
Analysis Batch: 324737

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	0.68		1.00	1.46		mg/L		78	75 - 125

Lab Sample ID: 660-76002-J-2 MSD
Matrix: Water
Analysis Batch: 324737

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	0.68		1.00	1.49		mg/L		81	75 - 125	2	4

Lab Sample ID: 400-126926-3 DU
Matrix: Water
Analysis Batch: 324737

Client Sample ID: MW-202
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 400-322718/6
Matrix: Water
Analysis Batch: 322718

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			09/15/16 08:31	1

Lab Sample ID: LCS 400-322718/7
Matrix: Water
Analysis Batch: 322718

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	15.3		mg/L		102	90 - 110

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

Lab Sample ID: MRL 400-322718/3
Matrix: Water
Analysis Batch: 322718

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	4.42	I	mg/L		88	50 - 150		

Lab Sample ID: 400-126904-A-7 MS
Matrix: Water
Analysis Batch: 322815

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	1.4	U	10.0	10.1		mg/L		101	77 - 128		

Lab Sample ID: 400-126904-A-7 MSD
Matrix: Water
Analysis Batch: 322815

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	1.4	U	10.0	10.2		mg/L		102	77 - 128	1	5

Lab Sample ID: MB 400-325386/6
Matrix: Water
Analysis Batch: 325386

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			10/04/16 08:41	1

Lab Sample ID: LCS 400-325386/7
Matrix: Water
Analysis Batch: 325386

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 400-325386/3
Matrix: Water
Analysis Batch: 325386

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	4.08	I	mg/L		82	50 - 150		

Lab Sample ID: 400-127936-A-2 MS
Matrix: Water
Analysis Batch: 325386

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	1100		350	1100	J3	mg/L		-9	77 - 128		

Lab Sample ID: 400-127936-A-2 MSD
Matrix: Water
Analysis Batch: 325386

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	1100		350	1100	J3	mg/L		-10	77 - 128	0	5

QC Sample Results

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Lab Sample ID: MB 400-325593/6
Matrix: Water
Analysis Batch: 325593

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			10/05/16 16:03	1

Lab Sample ID: LCS 400-325593/7
Matrix: Water
Analysis Batch: 325593

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	14.4		mg/L		96	90 - 110		

Lab Sample ID: MRL 400-325593/3
Matrix: Water
Analysis Batch: 325593

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	4.68	I	mg/L		94	50 - 150		

Lab Sample ID: 400-126926-10 MS
Matrix: Water
Analysis Batch: 325593

Client Sample ID: EQ BLANK-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	8.90		mg/L		89	77 - 128		

Lab Sample ID: 400-126926-10 MSD
Matrix: Water
Analysis Batch: 325593

Client Sample ID: EQ BLANK-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	8.90		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 Swles	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: 1-1
Company: Gulf Power Company		Analysis Requested		Job #:
Address: BIN 731 One Energy Place	Due Date 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 Plant Crist	Project #: 40006609			
Site: Gypsum Storage Area	SSOW#:			

400-126926 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-200	9/8/16	1223	G	Water			X	X	X	X		
MW-201		0941		Water								
MW-202		0800		Water								
MW-203		0839		Water								
MW-204		1003		Water								
MW-205		1105		Water								
MW-206		1025		Water								
DUP-03		0925		W								
Field Blank-03		1050		W								
EQ Blank-03	9/8/16	~~1223~~ 1135	G	W			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: 9/8/16 1336	Company RDH	Received by:	Date/Time: 9/8/16 1336	Company
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: 1.4°C, 1.7°C, 0.3°C IR6

10/18/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126926-1
SDG Number: Gypsum Storage Area

Login Number: 126926
List Number: 1
Creator: Perez, Trina M

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	1.4°C, 1.7°C, 0.3°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126926-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-126926-2
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/23/2016 6:32:46 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 16
Chronicle 17
QC Association 20
QC Sample Results 21
Chain of Custody 23
Receipt Checklists 24
Certification Summary 25

Job ID: 400-126926-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-126926-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-272045: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-200 (400-126926-1), MW-201 (400-126926-2), MW-202 (400-126926-3), MW-203 (400-126926-4), MW-204 (400-126926-5), MW-205 (400-126926-6), MW-206 (400-126926-7), DUPLICATE-03 (400-126926-8), FIELD BLANK-03 (400-126926-9) and EQ BLANK-03 (400-126926-10). 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 160-272039: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-200 (400-126926-1), MW-201 (400-126926-2), MW-202 (400-126926-3), MW-203 (400-126926-4), MW-204 (400-126926-5), MW-205 (400-126926-6), MW-206 (400-126926-7), DUPLICATE-03 (400-126926-8), FIELD BLANK-03 (400-126926-9) and EQ BLANK-03 (400-126926-10). 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 Plant Crist

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

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

Protocol References:

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

Sample Summary

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

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126926-1	MW-200	Water	09/08/16 12:23	09/08/16 13:36
400-126926-2	MW-201	Water	09/08/16 09:41	09/08/16 13:36
400-126926-3	MW-202	Water	09/08/16 08:00	09/08/16 13:36
400-126926-4	MW-203	Water	09/08/16 08:39	09/08/16 13:36
400-126926-5	MW-204	Water	09/08/16 10:03	09/08/16 13:36
400-126926-6	MW-205	Water	09/08/16 11:05	09/08/16 13:36
400-126926-7	MW-206	Water	09/08/16 10:25	09/08/16 13:36
400-126926-8	DUPLICATE-03	Water	09/08/16 09:25	09/08/16 13:36
400-126926-9	FIELD BLANK-03	Water	09/08/16 10:50	09/08/16 13:36
400-126926-10	EQ BLANK-03	Water	09/08/16 11:35	09/08/16 13:36

Client Sample ID: MW-200

Date Collected: 09/08/16 12:23
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-1

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	8.75		0.386	0.877	1.00	0.0747	pCi/L	09/27/16 16:54	10/19/16 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	12.0		0.703	1.31	1.00	0.314	pCi/L	09/27/16 18:52	10/13/16 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*1*
Y Carrier	*95.3*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*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	20.8		0.802	1.58	5.00	0.314	pCi/L		10/20/16 15:27	1

Client Sample ID: MW-201

Date Collected: 09/08/16 09:41
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-2

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	7.11		0.369	0.739	1.00	0.0742	pCi/L	09/27/16 16:54	10/19/16 10:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	13.0		0.755	1.42	1.00	0.326	pCi/L	09/27/16 18:52	10/13/16 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.7*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*1*
Y Carrier	*90.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*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		0.840	1.60	5.00	0.326	pCi/L		10/20/16 15:27	1

Client Sample ID: MW-202

Date Collected: 09/08/16 08:00
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-3

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	0.694		0.119	0.134	1.00	0.0800	pCi/L	09/27/16 16:54	10/19/16 10:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.807		0.276	0.286	1.00	0.380	pCi/L	09/27/16 18:52	10/13/16 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*1*
Y Carrier	*94.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*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	1.50		0.301	0.316	5.00	0.380	pCi/L		10/20/16 15:27	1

Client Sample ID: MW-203

Date Collected: 09/08/16 08:39
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-4

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	1.80		0.203	0.260	1.00	0.102	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.10		0.468	0.601	1.00	0.354	pCi/L	09/27/16 18:52	10/13/16 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*1*
Y Carrier	*95.0*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*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	5.91		0.510	0.655	5.00	0.354	pCi/L		10/20/16 15:27	1

Client Sample ID: MW-204

Date Collected: 09/08/16 10:03
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-5

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	1.13		0.157	0.187	1.00	0.0858	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.1		0.708	1.24	1.00	0.377	pCi/L	09/27/16 18:52	10/13/16 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*1*
Y Carrier	*93.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*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	12.3		0.725	1.26	5.00	0.377	pCi/L		10/20/16 15:27	1

Client Sample ID: MW-205

Date Collected: 09/08/16 11:05
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-6

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	0.221		0.0766	0.0791	1.00	0.0807	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.347		0.217	0.219	1.00	0.330	pCi/L	09/27/16 18:52	10/13/16 13:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*1*
Y Carrier	*93.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:13*	*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	0.568		0.230	0.233	5.00	0.330	pCi/L		10/20/16 15:27	1

Client Sample ID: MW-206

Date Collected: 09/08/16 10:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-7

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	9.68		0.445	0.978	1.00	0.0831	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	13.3		0.811	1.47	1.00	0.411	pCi/L	09/27/16 18:52	10/13/16 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*1*
Y Carrier	*88.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*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	23.0		0.925	1.77	5.00	0.411	pCi/L		10/20/16 15:27	1

Client Sample ID: DUPLICATE-03

Date Collected: 09/08/16 09:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-8

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	10.9		0.508	1.10	1.00	0.116	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.2*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	15.3		0.950	1.70	1.00	0.473	pCi/L	09/27/16 18:52	10/13/16 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*1*
Y Carrier	*87.1*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*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	26.1		1.08	2.02	5.00	0.473	pCi/L		10/20/16 15:27	1

Client Sample ID: FIELD BLANK-03

Date Collected: 09/08/16 10:50
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-9

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	0.0879		0.0541	0.0546	1.00	0.0729	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0202	U	0.256	0.256	1.00	0.448	pCi/L	09/27/16 18:52	10/13/16 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*1*
Y Carrier	*89.3*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*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	0.261	0.261	5.00	0.448	pCi/L		10/20/16 15:27	1

Client Sample ID: EQ BLANK-03

Date Collected: 09/08/16 11:35
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-10

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	0.0564	U	0.0514	0.0516	1.00	0.0793	pCi/L	09/27/16 16:54	10/19/16 10:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*09/27/16 16:54*	*10/19/16 10:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.291	U	0.247	0.248	1.00	0.394	pCi/L	09/27/16 18:52	10/13/16 13:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*1*
Y Carrier	*82.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 13:14*	*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	0.348	U	0.252	0.253	5.00	0.394	pCi/L		10/20/16 15:27	1

Definitions/Glossary

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

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 09/08/16 12:23
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275152	10/19/16 07:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: MW-201
Date Collected: 09/08/16 09:41
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:47	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: MW-202
Date Collected: 09/08/16 08:00
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:47	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: MW-203
Date Collected: 09/08/16 08:39
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: MW-204
Date Collected: 09/08/16 10:03
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: MW-205
Date Collected: 09/08/16 11:05
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: MW-206
Date Collected: 09/08/16 10:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: DUPLICATE-03
Date Collected: 09/08/16 09:25
Date Received: 09/08/16 13:36

Lab Sample ID: 400-126926-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

Client Sample ID: FIELD BLANK-03

Lab Sample ID: 400-126926-9

Date Collected: 09/08/16 10:50

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Client Sample ID: EQ BLANK-03

Lab Sample ID: 400-126926-10

Date Collected: 09/08/16 11:35

Matrix: Water

Date Received: 09/08/16 13:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			272039	09/27/16 16:54	MCJ	TAL SL
Total/NA	Analysis	9315		1	275153	10/19/16 10:48	ALS	TAL SL
Total/NA	Prep	PrecSep_0			272045	09/27/16 18:52	MCJ	TAL SL
Total/NA	Analysis	9320		1	274417	10/13/16 13:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275407	10/20/16 15:27	CAH	TAL SL

Laboratory References:

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

Rad

Prep Batch: 272039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	PrecSep-21	
400-126926-2	MW-201	Total/NA	Water	PrecSep-21	
400-126926-3	MW-202	Total/NA	Water	PrecSep-21	
400-126926-4	MW-203	Total/NA	Water	PrecSep-21	
400-126926-5	MW-204	Total/NA	Water	PrecSep-21	
400-126926-6	MW-205	Total/NA	Water	PrecSep-21	
400-126926-7	MW-206	Total/NA	Water	PrecSep-21	
400-126926-8	DUPLICATE-03	Total/NA	Water	PrecSep-21	
400-126926-9	FIELD BLANK-03	Total/NA	Water	PrecSep-21	
400-126926-10	EQ BLANK-03	Total/NA	Water	PrecSep-21	
MB 160-272039/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-272039/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-272039/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 272045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126926-1	MW-200	Total/NA	Water	PrecSep_0	
400-126926-2	MW-201	Total/NA	Water	PrecSep_0	
400-126926-3	MW-202	Total/NA	Water	PrecSep_0	
400-126926-4	MW-203	Total/NA	Water	PrecSep_0	
400-126926-5	MW-204	Total/NA	Water	PrecSep_0	
400-126926-6	MW-205	Total/NA	Water	PrecSep_0	
400-126926-7	MW-206	Total/NA	Water	PrecSep_0	
400-126926-8	DUPLICATE-03	Total/NA	Water	PrecSep_0	
400-126926-9	FIELD BLANK-03	Total/NA	Water	PrecSep_0	
400-126926-10	EQ BLANK-03	Total/NA	Water	PrecSep_0	
MB 160-272045/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-272045/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-272045/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-272039/1-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272039

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06461	U	0.0613	0.0616	1.00	0.0971	pCi/L	09/27/16 16:54	10/19/16 07:27	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*09/27/16 16:54*	*10/19/16 07:27*	*1*

Lab Sample ID: LCS 160-272039/2-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272039

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	12.04		1.18	1.00	0.0699	pCi/L	108	68 - 137		

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

Lab Sample ID: LCSD 160-272039/3-A
Matrix: Water
Analysis Batch: 275152

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272039

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	11.51		1.13	1.00	0.0818	pCi/L	104	68 - 137	0.23	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.9*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-272045/1-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272045

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3184	U	0.281	0.282	1.00	0.453	pCi/L	09/27/16 18:52	10/13/16 12:57	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*
Y Carrier	*87.5*		*40 - 110*	*09/27/16 18:52*	*10/13/16 12:57*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-272045/2-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272045

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.4	14.24		1.51	1.00	0.363	pCi/L	99	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Lab Sample ID: LCSD 160-272045/3-A
Matrix: Water
Analysis Batch: 274413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272045

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.4	14.68		1.55	1.00	0.347	pCi/L	102	56 - 140	0.14	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.9*		*40 - 110*
Y Carrier	*92.3*		*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 Swles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40006609			
Site: Gypsum Storage Area	SSOW#:			

Analysis Requested

400-126926 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-200	9/8/16	1223	G	Water			X	X		X	X		
MW-201		0941		Water									
MW-202		0800		Water									
MW-203		0839		Water									
MW-204		1003		Water									
MW-205		1105		Water									
MW-206		1025		Water									
DUP-03		0925		W									
Field Blank-03		1050		W									
EQ Blank-03	9/8/16	~~1223~~ 1135	G	W			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: 9/8/16 1336	Company: RDH	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Date/Time: 9/8/16 1336	Company
Date/Time: /	Company
Date/Time:	Company

Custody Seals Intact: △ Yes △ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.4°C, 1.7°C, 0.3°C IR6

10/23/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-126926-2
SDG Number: Gypsum Storage Area

Login Number: 126926
List Number: 1
Creator: Perez, Trina M

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	1.4°C, 1.7°C, 0.3°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-126926-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-129768-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
12/14/2016 5:29:56 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 25
Chain of Custody 32
Receipt Checklists 33
Certification Summary 34

Job ID: 400-129768-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129768-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-129768-2), MW-304 (400-129768-3) and MW-308 (400-129768-5). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 SO4 E: Due to the high concentration of Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 333219 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Detection Summary

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-129768-1

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
Boron	0.025	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.53		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.54				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-129768-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.032		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.00065	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	84		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00051	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.026		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0046		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00017	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	5.0		1.0	0.42	mg/L	100		6020	Total Recoverable
Molybdenum - DL	2.2		0.30	0.017	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	580		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	150		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	230		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.55				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-129768-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0035		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.8		0.050	0.021	mg/L	5		6020	Total Recoverable
Cobalt	0.099		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00047	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0055		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00014	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-129768-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	160		1.3	0.63	mg/L	25		6020	Total Recoverable
Mercury	0.00065		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1100		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	98		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.090	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	630		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.26				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-129768-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.045	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.82		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00046	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.78				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-129768-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	79		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0058		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00032	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	6.0		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	530		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	47		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	280		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.02				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-129768-6

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
Boron	0.080		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.83		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00049	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Client Sample ID: DUP-01 (Continued) — Lab Sample ID: 400-129768-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-129768-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00074	I	0.0025	0.00049	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-01 — Lab Sample ID: 400-129768-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

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

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 Plant Crist

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129768-1	MW-300	Water	11/08/16 07:18	11/08/16 15:15
400-129768-2	MW-303	Water	11/08/16 10:49	11/08/16 15:15
400-129768-3	MW-304	Water	11/08/16 08:43	11/08/16 15:15
400-129768-4	MW-305	Water	11/07/16 14:49	11/08/16 15:15
400-129768-5	MW-308	Water	11/08/16 09:35	11/08/16 15:15
400-129768-6	DUP-01	Water	11/07/16 13:49	11/08/16 15:15
400-129768-7	EB-01	Water	11/08/16 08:53	11/08/16 15:15
400-129768-8	FB-01	Water	11/08/16 10:55	11/08/16 15:15

Client Sample Results

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 11/08/16 07:18
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-1

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		11/09/16 10:50	11/15/16 17:57	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 17:57	5
Barium	**0.011**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 17:57	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:57	5
Boron	**0.025**	**I**	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 17:57	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:57	5
Calcium	**0.53**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 17:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 17:57	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 17:57	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 17:57	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 17:57	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 17:57	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 17:57	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 17:57	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		11/09/16 10:39	11/11/16 13:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**8.5**		2.0	0.60	mg/L			11/16/16 16:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/22/16 18:05	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.54**				SU			11/08/16 07:18	1

Client Sample ID: MW-303

Date Collected: 11/08/16 10:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-2

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		11/09/16 10:50	11/15/16 18:01	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 18:01	5
Barium	**0.032**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 18:01	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:01	5
Cadmium	**0.00065**	**I**	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:01	5
Calcium	**84**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 18:01	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 18:01	5
Cobalt	**0.00051**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 18:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 18:01	5
Lithium	**0.026**		0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 18:01	5
Selenium	**0.0046**		0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 18:01	5
Thallium	**0.00017**	**I**	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 18:01	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.0**		1.0	0.42	mg/L		11/09/16 10:50	11/15/16 18:05	100
Molybdenum	**2.2**		0.30	0.017	mg/L		11/09/16 10:50	11/15/16 18:05	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		11/09/16 10:39	11/11/16 13:28	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**580**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**150**		10	3.0	mg/L			11/16/16 16:37	5
Fluoride	**0.13**		0.10	0.032	mg/L			11/22/16 18:07	1
Sulfate	**230**		50	14	mg/L			11/30/16 11:03	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.55**				SU			11/08/16 10:49	1

Client Sample ID: MW-304

Date Collected: 11/08/16 08:43
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-3

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		11/09/16 10:50	11/15/16 18:10	5
Arsenic	**0.0035**		0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 18:10	5
Barium	**0.042**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 18:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:10	5
Boron	**1.8**		0.050	0.021	mg/L		11/09/16 10:50	11/15/16 18:10	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 18:10	5
Cobalt	**0.099**		0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 18:10	5
Lead	**0.00047**	**I**	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 18:10	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 18:10	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 18:10	5
Selenium	**0.0055**		0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 18:10	5
Thallium	**0.00014**	**I**	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 18:10	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**160**		1.3	0.63	mg/L		11/09/16 10:50	11/15/16 18:15	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00065**		0.00020	0.000070	mg/L		11/09/16 10:39	11/11/16 13:30	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**98**		4.0	1.2	mg/L			11/30/16 11:11	2
Fluoride	**0.090**	**I**	0.10	0.032	mg/L			11/28/16 12:11	1
Sulfate	**630**		100	28	mg/L			11/30/16 11:24	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.26**				SU			11/08/16 08:43	1

Client Sample ID: MW-305

Date Collected: 11/07/16 14:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-4

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		11/09/16 10:50	11/15/16 18:19	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 18:19	5
Barium	**0.017**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 18:19	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:19	5
Boron	**0.045**	**I**	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 18:19	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:19	5
Calcium	**0.82**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 18:19	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 18:19	5
Cobalt	**0.00046**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 18:19	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 18:19	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 18:19	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 18:19	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 18:19	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 18:19	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		11/09/16 10:39	11/11/16 13:31	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**8.0**		2.0	0.60	mg/L			11/16/16 15:20	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:17	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.78**				SU			11/07/16 14:49	1

Client Sample ID: MW-308

Date Collected: 11/08/16 09:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-5

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		11/09/16 10:50	11/15/16 18:24	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 18:24	5
Barium	**0.025**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 18:24	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:24	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:24	5
Calcium	**79**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 18:24	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 18:24	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 18:24	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 18:24	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 18:24	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 18:24	5
Selenium	**0.0058**		0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 18:24	5
Thallium	**0.00032**	**I**	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 18:24	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.0**		0.25	0.11	mg/L		11/09/16 10:50	11/15/16 18:28	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		11/09/16 10:39	11/11/16 13:33	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**530**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**47**		2.0	0.60	mg/L			11/30/16 10:33	1
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			11/28/16 12:29	1
Sulfate	**280**		50	14	mg/L			11/30/16 11:04	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.02**				SU			11/08/16 09:35	1

Client Sample ID: DUP-01

Date Collected: 11/07/16 13:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-6

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		11/09/16 10:50	11/15/16 18:33	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 18:33	5
Barium	**0.018**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 18:33	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:33	5
Boron	**0.080**		0.050	0.021	mg/L		11/09/16 10:50	11/15/16 18:33	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 18:33	5
Calcium	**0.83**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 18:33	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 18:33	5
Cobalt	**0.00049**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 18:33	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 18:33	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 18:33	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 18:33	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 18:33	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 18:33	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		11/09/16 10:39	11/11/16 13:34	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**46**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**7.8**		2.0	0.60	mg/L			11/16/16 15:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:31	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Client Sample ID: EB-01

Date Collected: 11/08/16 08:53
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-7

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		11/09/16 10:50	11/15/16 19:04	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 19:04	5
Barium	**0.00074**	**I**	0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 19:04	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 19:04	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 19:04	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 19:04	5
Calcium	0.13	U	0.25	0.13	mg/L		11/09/16 10:50	11/15/16 19:04	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 19:04	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 19:04	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 19:04	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 19:04	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 19:04	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 19:04	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 19:04	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		11/09/16 10:39	11/11/16 13:35	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			11/11/16 17:59	1
Chloride	0.60	U	2.0	0.60	mg/L			11/30/16 10:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:35	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:27	1

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Client Sample ID: FB-01
Date Collected: 11/08/16 10:55
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-8
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		11/09/16 10:50	11/15/16 19:08	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 19:08	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 19:08	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 19:08	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 19:08	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 19:08	5
Calcium	0.13	U	0.25	0.13	mg/L		11/09/16 10:50	11/15/16 19:08	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 19:08	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 19:08	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 19:08	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 19:08	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 19:08	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 19:08	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 19:08	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		11/09/16 10:47	11/11/16 13:36	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	0.60	U	2.0	0.60	mg/L			11/30/16 11:57	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:38	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 13:29	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-300

Lab Sample ID: 400-129768-1

Date Collected: 11/08/16 07:18

Matrix: Water

Date Received: 11/08/16 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 17:57	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 16:10	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332244	11/22/16 18:05	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 07:18	BWS	TAL PEN

Client Sample ID: MW-303

Lab Sample ID: 400-129768-2

Date Collected: 11/08/16 10:49

Matrix: Water

Date Received: 11/08/16 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 18:01	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	331169	11/15/16 18:05	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:28	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	331391	11/16/16 16:37	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332244	11/22/16 18:07	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	333219	11/30/16 11:03	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 10:49	BWS	TAL PEN

Client Sample ID: MW-304

Lab Sample ID: 400-129768-3

Date Collected: 11/08/16 08:43

Matrix: Water

Date Received: 11/08/16 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 18:10	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331169	11/15/16 18:15	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	333223	11/30/16 11:11	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	333219	11/30/16 11:24	SEH	TAL PEN

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 08:43	BWS	TAL PEN

Client Sample ID: MW-305
Date Collected: 11/07/16 14:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 18:19	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:31	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 15:20	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/07/16 14:49	BWS	TAL PEN

Client Sample ID: MW-308
Date Collected: 11/08/16 09:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 18:24	RJB	TAL PEN
Total Recoverable	Prep	3005A	DL		330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331169	11/15/16 18:28	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 10:33	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	333219	11/30/16 11:04	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 09:35	BWS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 11/07/16 13:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 18:33	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:34	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 15:21	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:31	SLT	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Client Sample ID: DUP-01

Lab Sample ID: 400-129768-6

Date Collected: 11/07/16 13:49
Matrix: Water
Date Received: 11/08/16 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN

Client Sample ID: EB-01

Lab Sample ID: 400-129768-7

Date Collected: 11/08/16 08:53
Matrix: Water
Date Received: 11/08/16 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 19:04	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:39	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 10:33	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:35	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:27	SEH	TAL PEN

Client Sample ID: FB-01

Lab Sample ID: 400-129768-8

Date Collected: 11/08/16 10:55
Matrix: Water
Date Received: 11/08/16 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 19:08	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 11:57	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 13:29	SEH	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 330395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total Recoverable	Water	3005A	
400-129768-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-129768-2	MW-303	Total Recoverable	Water	3005A	
400-129768-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-129768-3	MW-304	Total Recoverable	Water	3005A	
400-129768-4	MW-305	Total Recoverable	Water	3005A	
400-129768-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-129768-5	MW-308	Total Recoverable	Water	3005A	
400-129768-6	DUP-01	Total Recoverable	Water	3005A	
400-129768-7	EB-01	Total Recoverable	Water	3005A	
400-129768-8	FB-01	Total Recoverable	Water	3005A	
MB 400-330395/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-330395/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-129770-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-129770-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 330400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	7470A	
400-129768-2	MW-303	Total/NA	Water	7470A	
400-129768-3	MW-304	Total/NA	Water	7470A	
400-129768-4	MW-305	Total/NA	Water	7470A	
400-129768-5	MW-308	Total/NA	Water	7470A	
400-129768-6	DUP-01	Total/NA	Water	7470A	
400-129768-7	EB-01	Total/NA	Water	7470A	
400-129768-8	FB-01	Total/NA	Water	7470A	
MB 400-330400/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-330400/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-129768-1 MS	MW-300	Total/NA	Water	7470A	
400-129768-1 MSD	MW-300	Total/NA	Water	7470A	

Analysis Batch: 330748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	7470A	330400
400-129768-2	MW-303	Total/NA	Water	7470A	330400
400-129768-3	MW-304	Total/NA	Water	7470A	330400
400-129768-4	MW-305	Total/NA	Water	7470A	330400
400-129768-5	MW-308	Total/NA	Water	7470A	330400
400-129768-6	DUP-01	Total/NA	Water	7470A	330400
400-129768-7	EB-01	Total/NA	Water	7470A	330400
400-129768-8	FB-01	Total/NA	Water	7470A	330400
MB 400-330400/14-A	Method Blank	Total/NA	Water	7470A	330400
LCS 400-330400/15-A	Lab Control Sample	Total/NA	Water	7470A	330400
400-129768-1 MS	MW-300	Total/NA	Water	7470A	330400
400-129768-1 MSD	MW-300	Total/NA	Water	7470A	330400

Analysis Batch: 331169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total Recoverable	Water	6020	330395
400-129768-2	MW-303	Total Recoverable	Water	6020	330395
400-129768-2 - DL	MW-303	Total Recoverable	Water	6020	330395

Metals (Continued)

Analysis Batch: 331169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-3	MW-304	Total Recoverable	Water	6020	330395
400-129768-3 - DL	MW-304	Total Recoverable	Water	6020	330395
400-129768-4	MW-305	Total Recoverable	Water	6020	330395
400-129768-5	MW-308	Total Recoverable	Water	6020	330395
400-129768-5 - DL	MW-308	Total Recoverable	Water	6020	330395
400-129768-6	DUP-01	Total Recoverable	Water	6020	330395
400-129768-7	EB-01	Total Recoverable	Water	6020	330395
400-129768-8	FB-01	Total Recoverable	Water	6020	330395
MB 400-330395/1-A ^5	Method Blank	Total Recoverable	Water	6020	330395
LCS 400-330395/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	330395
400-129770-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	330395
400-129770-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	330395

General Chemistry

Analysis Batch: 330775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	SM 2540C	
400-129768-2	MW-303	Total/NA	Water	SM 2540C	
400-129768-3	MW-304	Total/NA	Water	SM 2540C	
400-129768-4	MW-305	Total/NA	Water	SM 2540C	
400-129768-5	MW-308	Total/NA	Water	SM 2540C	
400-129768-6	DUP-01	Total/NA	Water	SM 2540C	
400-129768-7	EB-01	Total/NA	Water	SM 2540C	
400-129768-8	FB-01	Total/NA	Water	SM 2540C	
MB 400-330775/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-330775/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129768-4 DU	MW-305	Total/NA	Water	SM 2540C	
400-129768-5 DU	MW-308	Total/NA	Water	SM 2540C	

Analysis Batch: 331391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-129768-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-129768-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-129768-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-331391/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-331391/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-331391/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-129239-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-129239-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 332244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	SM 4500 F C	
400-129768-2	MW-303	Total/NA	Water	SM 4500 F C	
MB 400-332244/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-332244/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-130088-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-130088-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 332244 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130191-B-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 332817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-3	MW-304	Total/NA	Water	SM 4500 F C	
400-129768-4	MW-305	Total/NA	Water	SM 4500 F C	
400-129768-5	MW-308	Total/NA	Water	SM 4500 F C	
400-129768-6	DUP-01	Total/NA	Water	SM 4500 F C	
400-129768-7	EB-01	Total/NA	Water	SM 4500 F C	
400-129768-8	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-332817/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-332817/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129768-3 MS	MW-304	Total/NA	Water	SM 4500 F C	
400-129768-3 MSD	MW-304	Total/NA	Water	SM 4500 F C	
400-129770-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 333219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-129768-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-129768-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-129768-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-129768-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-129768-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-129768-7	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-129768-8	FB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-333219/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-333219/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-333219/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-130078-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-130078-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 333223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-129768-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-129768-7	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-129768-8	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-333223/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-333223/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-333223/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-129906-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-129906-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 334832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	Field Sampling	
400-129768-2	MW-303	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 334832 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-3	MW-304	Total/NA	Water	Field Sampling	
400-129768-4	MW-305	Total/NA	Water	Field Sampling	
400-129768-5	MW-308	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-330395/1-A ^5
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		11/09/16 10:50	11/15/16 16:22	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 16:22	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 16:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 16:22	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 16:22	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 16:22	5
Calcium	0.13	U	0.25	0.13	mg/L		11/09/16 10:50	11/15/16 16:22	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 16:22	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 16:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 16:22	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 16:22	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 16:22	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 16:22	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 16:22	5

Lab Sample ID: LCS 400-330395/2-A ^1
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0477		mg/L		95	80 - 120
Arsenic	0.0500	0.0537		mg/L		107	80 - 120
Barium	0.0500	0.0478		mg/L		96	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Boron	0.100	0.0927		mg/L		93	80 - 120
Cadmium	0.0500	0.0483		mg/L		97	80 - 120
Calcium	5.00	5.45		mg/L		109	80 - 120
Chromium	0.0500	0.0539		mg/L		108	80 - 120
Cobalt	0.0500	0.0514		mg/L		103	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Lithium	0.0500	0.0514		mg/L		103	80 - 120
Molybdenum	0.0500	0.0488		mg/L		98	80 - 120
Selenium	0.0500	0.0508		mg/L		102	80 - 120
Thallium	0.0100	0.00996		mg/L		100	80 - 120

Lab Sample ID: 400-129770-B-1-B MS ^5
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0495		mg/L		99	75 - 125
Arsenic	0.00046	U	0.0500	0.0554		mg/L		111	75 - 125
Barium	0.014		0.0500	0.0641		mg/L		99	75 - 125
Beryllium	0.00034	U	0.0500	0.0485		mg/L		97	75 - 125
Boron	0.021	U	0.100	0.115		mg/L		115	75 - 125
Cadmium	0.00034	U	0.0500	0.0510		mg/L		102	75 - 125
Calcium	0.80		5.00	6.40		mg/L		112	75 - 125
Chromium	0.0011	U	0.0500	0.0552		mg/L		110	75 - 125

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

Lab Sample ID: 400-129770-B-1-B MS ^5
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00049	I	0.0500	0.0540		mg/L		107	75 - 125
Lead	0.00035	U	0.0500	0.0492		mg/L		98	75 - 125
Lithium	0.0032	U	0.0500	0.0518		mg/L		104	75 - 125
Molybdenum	0.00085	U	0.0500	0.0488		mg/L		98	75 - 125
Selenium	0.00024	U	0.0500	0.0527		mg/L		105	75 - 125
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125

Lab Sample ID: 400-129770-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 330395

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	0.0484		mg/L		97	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0545		mg/L		109	75 - 125	2	20
Barium	0.014		0.0500	0.0636		mg/L		98	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0475		mg/L		95	75 - 125	2	20
Boron	0.021	U	0.100	0.112		mg/L		112	75 - 125	3	20
Cadmium	0.00034	U	0.0500	0.0497		mg/L		99	75 - 125	3	20
Calcium	0.80		5.00	6.36		mg/L		111	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0553		mg/L		111	75 - 125	0	20
Cobalt	0.00049	I	0.0500	0.0533		mg/L		106	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0488		mg/L		98	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0509		mg/L		102	75 - 125	2	20
Molybdenum	0.00085	U	0.0500	0.0488		mg/L		98	75 - 125	0	20
Selenium	0.00024	U	0.0500	0.0511		mg/L		102	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.00977		mg/L		98	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-330400/14-A
Matrix: Water
Analysis Batch: 330748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330400

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/09/16 10:39	11/11/16 13:11	1

Lab Sample ID: LCS 400-330400/15-A
Matrix: Water
Analysis Batch: 330748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000891		mg/L		88	80 - 120

Lab Sample ID: 400-129768-1 MS
Matrix: Water
Analysis Batch: 330748

Client Sample ID: MW-300
Prep Type: Total/NA
Prep Batch: 330400

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00187		mg/L		93	80 - 120

Lab Sample ID: 400-129768-1 MSD — **Client Sample ID: MW-300**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 330748 — **Prep Batch: 330400**

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	0.00186		mg/L		93	80 - 120	1	20

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

Lab Sample ID: MB 400-330775/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 330775

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			11/11/16 17:59	1

Lab Sample ID: LCS 400-330775/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 330775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	272		mg/L		93	78 - 122

Lab Sample ID: 400-129768-4 DU — **Client Sample ID: MW-305**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 330775

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	32		32.0		mg/L		0	5

Lab Sample ID: 400-129768-5 DU — **Client Sample ID: MW-308**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 330775

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	530		534		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-331391/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331391

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			11/16/16 14:59	1

Lab Sample ID: LCS 400-331391/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.0		mg/L		107	90 - 110

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

Lab Sample ID: MRL 400-331391/3
Matrix: Water
Analysis Batch: 331391

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	1.45	I	mg/L		72	50 - 150

Lab Sample ID: 400-129239-B-3 MS
Matrix: Water
Analysis Batch: 331391

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	10		10.0	21.8		mg/L		116	73 - 120

Lab Sample ID: 400-129239-B-3 MSD
Matrix: Water
Analysis Batch: 331391

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	10		10.0	22.0		mg/L		118	73 - 120	1	8

Lab Sample ID: MB 400-333223/6
Matrix: Water
Analysis Batch: 333223

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			11/30/16 09:47	1

Lab Sample ID: LCS 400-333223/7
Matrix: Water
Analysis Batch: 333223

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 400-333223/3
Matrix: Water
Analysis Batch: 333223

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	1.93	I	mg/L		97	50 - 150

Lab Sample ID: 400-129906-A-6 MS
Matrix: Water
Analysis Batch: 333223

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	5.9		10.0	17.5		mg/L		116	73 - 120

Lab Sample ID: 400-129906-A-6 MSD
Matrix: Water
Analysis Batch: 333223

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	5.9		10.0	17.3		mg/L		114	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-332244/4
Matrix: Water
Analysis Batch: 332244

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			11/22/16 16:59	1

Lab Sample ID: LCS 400-332244/5
Matrix: Water
Analysis Batch: 332244

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	4.11		mg/L		103	90 - 110		

Lab Sample ID: 400-130088-A-1 MS
Matrix: Water
Analysis Batch: 332244

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	0.940		mg/L		94	75 - 125		

Lab Sample ID: 400-130088-A-1 MSD
Matrix: Water
Analysis Batch: 332244

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	0.920		mg/L		92	75 - 125	2	4

Lab Sample ID: 400-130191-B-1 DU
Matrix: Water
Analysis Batch: 332244

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.050	I		0.0500	I	mg/L				0	4

Lab Sample ID: MB 400-332817/3
Matrix: Water
Analysis Batch: 332817

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			11/28/16 12:01	1

Lab Sample ID: LCS 400-332817/4
Matrix: Water
Analysis Batch: 332817

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	4.03		mg/L		101	90 - 110		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-129768-3 MS
Matrix: Water
Analysis Batch: 332817

Client Sample ID: MW-304
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.090	I	1.00	0.960		mg/L		87	75 - 125

Lab Sample ID: 400-129768-3 MSD
Matrix: Water
Analysis Batch: 332817

Client Sample ID: MW-304
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.090	I	1.00	0.960		mg/L		87	75 - 125	0	4

Lab Sample ID: 400-129770-A-3 DU
Matrix: Water
Analysis Batch: 332817

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 400-333219/6
Matrix: Water
Analysis Batch: 333219

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			11/30/16 09:49	1

Lab Sample ID: LCS 400-333219/7
Matrix: Water
Analysis Batch: 333219

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 400-333219/3
Matrix: Water
Analysis Batch: 333219

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	4.14	I	mg/L		83	50 - 150

Lab Sample ID: 400-130078-C-1 MS
Matrix: Water
Analysis Batch: 333219

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	1500		450	1440	J3	mg/L		-4	77 - 128

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

Lab Sample ID: 400-130078-C-1 MSD
Matrix: Water
Analysis Batch: 333219

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	1500		450	1450	J3	mg/L		-2	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 Swiles	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: 1-1
Company: Gulf Power Company		Analysis Requested		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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 2	SSOW#:			

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	SM4600_Cl_E - Chloride, SM4600_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-300	11/8/16	0718	G	Water			X	X	X	X		
MW-303	11/8/16	1049	G	Water			X	X	X	X		
MW-304	11/8/16	0843	G	Water			X	X	X	X		
MW-305	11/7/16	1449	G	Water			X	X	X	X		
MW-308	11/8/16	0935	G	Water			X	X	X	X		
DUP-01	11/7/16	1349	G	WATER			X	X	X	X		
EB-01	11/8/16	0853	G	WATER			X	X	X	X		
FB-01	11/8/16	1055	G	WATER			X	X	X	X		

400-129768 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: 11/8/16 1515	Company: RDH	Received by:	Date/Time: 11/8/16 1575	Company: TA-PEN		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1	Company		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.0°C IR6				

12/14/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129768-1
SDG Number: Landfill 2

Login Number: 129768
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.0°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-129768-1
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-129768-2
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
12/14/2016 6:03:23 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Method Summary 3
Sample Summary 4
Client Sample Results 5
Definitions 13
Chronicle 14
QC Association 16
QC Sample Results 17
Chain of Custody 19
Receipt Checklists 20
Certification Summary 21

Method Summary

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

TestAmerica Job ID: 400-129768-2
SDG: Landfill 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

Protocol References:

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

Sample Summary

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

TestAmerica Job ID: 400-129768-2
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129768-1	MW-300	Water	11/08/16 07:18	11/08/16 15:15
400-129768-2	MW-303	Water	11/08/16 10:49	11/08/16 15:15
400-129768-3	MW-304	Water	11/08/16 08:43	11/08/16 15:15
400-129768-4	MW-305	Water	11/07/16 14:49	11/08/16 15:15
400-129768-5	MW-308	Water	11/08/16 09:35	11/08/16 15:15
400-129768-6	DUP-01	Water	11/07/16 13:49	11/08/16 15:15
400-129768-7	EB-01	Water	11/08/16 08:53	11/08/16 15:15
400-129768-8	FB-01	Water	11/08/16 10:55	11/08/16 15:15

Client Sample ID: MW-300

Date Collected: 11/08/16 07:18
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-1

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	0.496		0.263	0.267	1.00	0.326	pCi/L	11/11/16 10:54	12/10/16 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.14		0.634	0.791	1.00	0.539	pCi/L	11/11/16 11:54	12/09/16 15:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:48*	*1*
Y Carrier	*77.4*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:48*	*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	5.64		0.687	0.835	5.00	0.539	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-303

Date Collected: 11/08/16 10:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-2

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	1.12		0.357	0.371	1.00	0.360	pCi/L	11/11/16 10:54	12/10/16 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.49		0.547	0.685	1.00	0.448	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	5.61		0.653	0.779	5.00	0.448	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-304

Date Collected: 11/08/16 08:43
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-3

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	2.81		0.447	0.513	1.00	0.287	pCi/L	11/11/16 10:54	12/11/16 15:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*11/11/16 10:54*	*12/11/16 15:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.65		0.590	0.729	1.00	0.496	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*81.9*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	7.47		0.740	0.891	5.00	0.496	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-305

Date Collected: 11/07/16 14:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-4

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	0.578		0.277	0.282	1.00	0.335	pCi/L	11/11/16 10:54	12/10/16 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.738		0.329	0.336	1.00	0.474	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*86.0*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	1.32		0.430	0.439	5.00	0.474	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-308

Date Collected: 11/08/16 09:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-5

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	1.18		0.348	0.364	1.00	0.288	pCi/L	11/11/16 10:54	12/10/16 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.78		0.420	0.451	1.00	0.487	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*77.4*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	2.96		0.546	0.579	5.00	0.487	pCi/L		12/13/16 09:05	1

Client Sample ID: DUP-01

Date Collected: 11/07/16 13:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-6

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	0.673		0.301	0.307	1.00	0.342	pCi/L	11/11/16 10:54	12/10/16 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.687		0.360	0.366	1.00	0.526	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*74.8*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	1.36		0.469	0.477	5.00	0.526	pCi/L		12/13/16 09:05	1

Client Sample ID: EB-01

Date Collected: 11/08/16 08:53
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-7

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	0.0721	U	0.163	0.164	1.00	0.300	pCi/L	11/11/16 10:54	12/10/16 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0244	U	0.274	0.274	1.00	0.502	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*75.1*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	0.0477	U	0.319	0.319	5.00	0.502	pCi/L		12/13/16 09:05	1

Client Sample ID: FB-01

Date Collected: 11/08/16 10:55
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-8

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	0.244	U	0.238	0.239	1.00	0.375	pCi/L	11/11/16 10:54	12/10/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0293	U	0.283	0.283	1.00	0.501	pCi/L	11/11/16 11:54	12/09/16 15:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*1*
Y Carrier	*86.4*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:49*	*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	0.274	U	0.369	0.370	5.00	0.501	pCi/L		12/13/16 09:05	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-129768-2
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 11/08/16 07:18
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283324	12/10/16 11:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: MW-303
Date Collected: 11/08/16 10:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283324	12/10/16 11:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: MW-304
Date Collected: 11/08/16 08:43
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 15:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: MW-305
Date Collected: 11/07/16 14:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283324	12/10/16 11:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-129768-2
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 11/08/16 09:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283324	12/10/16 11:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: DUP-01
Date Collected: 11/07/16 13:49
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283324	12/10/16 11:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: EB-01
Date Collected: 11/08/16 08:53
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283324	12/10/16 11:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: FB-01
Date Collected: 11/08/16 10:55
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129768-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283325	12/10/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Laboratory References:

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

Rad

Prep Batch: 278788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	PrecSep-21	
400-129768-2	MW-303	Total/NA	Water	PrecSep-21	
400-129768-3	MW-304	Total/NA	Water	PrecSep-21	
400-129768-4	MW-305	Total/NA	Water	PrecSep-21	
400-129768-5	MW-308	Total/NA	Water	PrecSep-21	
400-129768-6	DUP-01	Total/NA	Water	PrecSep-21	
400-129768-7	EB-01	Total/NA	Water	PrecSep-21	
400-129768-8	FB-01	Total/NA	Water	PrecSep-21	
MB 160-278788/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-278788/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-19941-P-4-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 278797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129768-1	MW-300	Total/NA	Water	PrecSep_0	
400-129768-2	MW-303	Total/NA	Water	PrecSep_0	
400-129768-3	MW-304	Total/NA	Water	PrecSep_0	
400-129768-4	MW-305	Total/NA	Water	PrecSep_0	
400-129768-5	MW-308	Total/NA	Water	PrecSep_0	
400-129768-6	DUP-01	Total/NA	Water	PrecSep_0	
400-129768-7	EB-01	Total/NA	Water	PrecSep_0	
400-129768-8	FB-01	Total/NA	Water	PrecSep_0	
MB 160-278797/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-278797/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-19941-P-4-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-278788/1-A
Matrix: Water
Analysis Batch: 283324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278788

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04767	U	0.170	0.170	1.00	0.327	pCi/L	11/11/16 10:54	12/10/16 11:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:54*	*1*

Lab Sample ID: LCS 160-278788/2-A
Matrix: Water
Analysis Batch: 283324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278788

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	13.93		1.68	1.00	0.313	pCi/L	126	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*

Lab Sample ID: 160-19941-P-4-A DU
Matrix: Water
Analysis Batch: 283324

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 278788

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.262	U		0.3298	U	0.246	1.00	0.348	pCi/L			0.14	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*72.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-278797/1-A
Matrix: Water
Analysis Batch: 283245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278797

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2622	U	0.349	0.350	1.00	0.581	pCi/L	11/11/16 11:54	12/09/16 15:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:47*	*1*
Y Carrier	*77.8*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:47*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-278797/2-A
Matrix: Water
Analysis Batch: 283245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278797

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.2	15.97		1.78	1.00	0.525	pCi/L	113	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*
Y Carrier	*78.5*		*40 - 110*

Lab Sample ID: 160-19941-P-4-B DU
Matrix: Water
Analysis Batch: 283245

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 278797

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.206	U		-0.1626	U	0.311	1.00	0.578	pCi/L			0.55	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*72.6*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

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

Lab Sample ID: 400-129467-A-3 DU
Matrix: Water
Analysis Batch: 283684

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	0.632			0.9591		0.503	5.00	0.678	pCi/L			0.37	

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 Swiles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 2	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	SM4600_Cl_E - Chloride, SM4600_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-300	11/8/16	0718	G	Water			X	X	X	X		
MW-303	11/8/16	1049	G	Water			X	X	X	X		
MW-304	11/8/16	0843	G	Water			X	X	X	X		
MW-305	11/7/16	1449	G	Water			X	X	X	X		
MW-308	11/8/16	0935	G	Water			X	X	X	X		
DUP-01	11/7/16	1349	G	WATER			X	X	X	X		
EB-01	11/8/16	0853	G	WATER			X	X	X	X		
FB-01	11/8/16	1055	G	WATER			X	X	X	X		

400-129768 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
		11/8/16 1515	KDH		11/8/16 1575	TA-PEN
	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: 0.0°C, 0.0°C IR6

12/14/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129768-2
SDG Number: Landfill 2

Login Number: 129768
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.0°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-129768-2
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-129768-2
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-129770-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
12/14/2016 5:32:26 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 13
Chronicle 14
QC Association 16
QC Sample Results 19
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-129770-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129770-1

General Chemistry
Method(s) SM 4500 SO4 E: Due to the high concentration of Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 333219 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Detection Summary

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-129770-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.80		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00049	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.76				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-129770-2

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
Calcium	0.56		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00058	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.73				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-129770-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0096		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	5.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.7	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.64				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-129770-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.68		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00041	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	4.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-129770-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.5		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 400-129770-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00047	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0097		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.75				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-129770-1
SDG: Background

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

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 Plant Crist

TestAmerica Job ID: 400-129770-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129770-1	MW-100	Water	11/07/16 09:19	11/08/16 15:15
400-129770-2	MW-107	Water	11/07/16 08:01	11/08/16 15:15
400-129770-3	MW-108	Water	11/07/16 07:13	11/08/16 15:15
400-129770-4	MW-306	Water	11/07/16 10:28	11/08/16 15:15
400-129770-5	MW-307	Water	11/07/16 11:35	11/08/16 15:15

Client Sample Results

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 11/07/16 09:19
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-1
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		11/09/16 10:50	11/15/16 16:53	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 16:53	5
Barium	**0.014**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 16:53	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 16:53	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 16:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 16:53	5
Calcium	**0.80**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 16:53	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 16:53	5
Cobalt	**0.00049**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 16:53	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 16:53	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 16:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 16:53	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 16:53	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 16:53	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		11/09/16 10:47	11/11/16 13:38	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**18**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**4.2**		2.0	0.60	mg/L			11/16/16 15:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:40	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.76**				SU			11/07/16 09:19	1

Client Sample Results

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 11/07/16 08:01
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-2
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		11/09/16 10:50	11/15/16 17:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 17:16	5
Barium	**0.013**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 17:16	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:16	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 17:16	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:16	5
Calcium	**0.56**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 17:16	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 17:16	5
Cobalt	**0.00058**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 17:16	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 17:16	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 17:16	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 17:16	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 17:16	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 17:16	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		11/09/16 10:47	11/11/16 13:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8.0**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**5.4**		2.0	0.60	mg/L			11/16/16 15:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:43	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.73**				SU			11/07/16 08:01	1

Client Sample Results

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 11/07/16 07:13
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-3
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		11/09/16 10:50	11/15/16 17:20	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 17:20	5
Barium	**0.0096**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 17:20	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:20	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 17:20	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:20	5
Calcium	**1.2**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 17:20	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 17:20	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 17:20	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 17:20	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 17:20	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 17:20	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 17:20	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 17:20	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		11/09/16 10:47	11/11/16 13:48	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			11/11/16 17:59	1
Chloride	**5.7**		2.0	0.60	mg/L			11/16/16 15:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:50	1
Sulfate	**1.7**	**I**	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.64**				SU			11/07/16 07:13	1

Client Sample ID: MW-306

Date Collected: 11/07/16 10:28
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-4

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		11/09/16 10:50	11/15/16 17:25	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 17:25	5
Barium	**0.012**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 17:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:25	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 17:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:25	5
Calcium	**0.68**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 17:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 17:25	5
Cobalt	**0.00041**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 17:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 17:25	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 17:25	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 17:25	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 17:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 17:25	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		11/09/16 10:47	11/11/16 13:49	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			11/11/16 17:59	1
Chloride	**4.6**		2.0	0.60	mg/L			11/16/16 16:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:56	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.92**				SU			11/07/16 10:28	1

Client Sample ID: MW-307
Date Collected: 11/07/16 11:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-5
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		11/09/16 10:50	11/15/16 17:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 17:29	5
Barium	**0.023**		0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 17:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:29	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 17:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 17:29	5
Calcium	**1.5**		0.25	0.13	mg/L		11/09/16 10:50	11/15/16 17:29	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 17:29	5
Cobalt	**0.00047**	**I**	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 17:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 17:29	5
Lithium	**0.0097**		0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 17:29	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 17:29	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 17:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 17:29	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		11/09/16 10:47	11/11/16 13:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**30**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**4.4**		2.0	0.60	mg/L			11/16/16 16:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/28/16 12:58	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/30/16 10:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.75**				SU			11/07/16 11:35	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 11/07/16 09:19
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 16:53	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 15:21	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/07/16 09:19	BWS	TAL PEN

Client Sample ID: MW-107
Date Collected: 11/07/16 08:01
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 17:16	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 15:21	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:43	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/07/16 08:01	BWS	TAL PEN

Client Sample ID: MW-108
Date Collected: 11/07/16 07:13
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 17:20	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 15:21	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/07/16 07:13	BWS	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Client Sample ID: MW-306

Date Collected: 11/07/16 10:28
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 17:25	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 16:10	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:56	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/07/16 10:28	BWS	TAL PEN

Client Sample ID: MW-307

Date Collected: 11/07/16 11:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330395	11/09/16 10:50	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331169	11/15/16 17:29	RJB	TAL PEN
Total/NA	Prep	7470A			330400	11/09/16 10:47	JAP	TAL PEN
Total/NA	Analysis	7470A		1	330748	11/11/16 13:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	331391	11/16/16 16:10	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 12:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 10:24	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/07/16 11:35	BWS	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 330395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total Recoverable	Water	3005A	
400-129770-2	MW-107	Total Recoverable	Water	3005A	
400-129770-3	MW-108	Total Recoverable	Water	3005A	
400-129770-4	MW-306	Total Recoverable	Water	3005A	
400-129770-5	MW-307	Total Recoverable	Water	3005A	
MB 400-330395/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-330395/2-A ^1	Lab Control Sample	Total Recoverable	Water	3005A	
400-129770-1 MS	MW-100	Total Recoverable	Water	3005A	
400-129770-1 MSD	MW-100	Total Recoverable	Water	3005A	

Prep Batch: 330400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	7470A	
400-129770-2	MW-107	Total/NA	Water	7470A	
400-129770-3	MW-108	Total/NA	Water	7470A	
400-129770-4	MW-306	Total/NA	Water	7470A	
400-129770-5	MW-307	Total/NA	Water	7470A	
MB 400-330400/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-330400/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-129768-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	
400-129768-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 330748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	7470A	330400
400-129770-2	MW-107	Total/NA	Water	7470A	330400
400-129770-3	MW-108	Total/NA	Water	7470A	330400
400-129770-4	MW-306	Total/NA	Water	7470A	330400
400-129770-5	MW-307	Total/NA	Water	7470A	330400
MB 400-330400/14-A	Method Blank	Total/NA	Water	7470A	330400
LCS 400-330400/15-A	Lab Control Sample	Total/NA	Water	7470A	330400
400-129768-B-1-C MS	Matrix Spike	Total/NA	Water	7470A	330400
400-129768-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	330400

Analysis Batch: 331169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total Recoverable	Water	6020	330395
400-129770-2	MW-107	Total Recoverable	Water	6020	330395
400-129770-3	MW-108	Total Recoverable	Water	6020	330395
400-129770-4	MW-306	Total Recoverable	Water	6020	330395
400-129770-5	MW-307	Total Recoverable	Water	6020	330395
MB 400-330395/1-A ^5	Method Blank	Total Recoverable	Water	6020	330395
LCS 400-330395/2-A ^1	Lab Control Sample	Total Recoverable	Water	6020	330395
400-129770-1 MS	MW-100	Total Recoverable	Water	6020	330395
400-129770-1 MSD	MW-100	Total Recoverable	Water	6020	330395

General Chemistry

Analysis Batch: 330775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	SM 2540C	
400-129770-2	MW-107	Total/NA	Water	SM 2540C	
400-129770-3	MW-108	Total/NA	Water	SM 2540C	
400-129770-4	MW-306	Total/NA	Water	SM 2540C	
400-129770-5	MW-307	Total/NA	Water	SM 2540C	
MB 400-330775/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-330775/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129768-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-129768-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 331391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-129770-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-129770-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-129770-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-129770-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
MB 400-331391/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-331391/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-331391/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-129239-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-129239-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 332817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	SM 4500 F C	
400-129770-2	MW-107	Total/NA	Water	SM 4500 F C	
400-129770-3	MW-108	Total/NA	Water	SM 4500 F C	
400-129770-4	MW-306	Total/NA	Water	SM 4500 F C	
400-129770-5	MW-307	Total/NA	Water	SM 4500 F C	
MB 400-332817/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-332817/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129768-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-129768-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-129770-3 DU	MW-108	Total/NA	Water	SM 4500 F C	

Analysis Batch: 333219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-129770-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-129770-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-129770-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-129770-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
MB 400-333219/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-333219/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-333219/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-130078-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-130078-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 334832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	Field Sampling	
400-129770-2	MW-107	Total/NA	Water	Field Sampling	
400-129770-3	MW-108	Total/NA	Water	Field Sampling	
400-129770-4	MW-306	Total/NA	Water	Field Sampling	
400-129770-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-330395/1-A ^5
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		11/09/16 10:50	11/15/16 16:22	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/09/16 10:50	11/15/16 16:22	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/09/16 10:50	11/15/16 16:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 16:22	5
Boron	0.021	U	0.050	0.021	mg/L		11/09/16 10:50	11/15/16 16:22	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/09/16 10:50	11/15/16 16:22	5
Calcium	0.13	U	0.25	0.13	mg/L		11/09/16 10:50	11/15/16 16:22	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/09/16 10:50	11/15/16 16:22	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/09/16 10:50	11/15/16 16:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/09/16 10:50	11/15/16 16:22	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/09/16 10:50	11/15/16 16:22	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/09/16 10:50	11/15/16 16:22	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/09/16 10:50	11/15/16 16:22	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/09/16 10:50	11/15/16 16:22	5

Lab Sample ID: LCS 400-330395/2-A ^1
Matrix: Water
Analysis Batch: 331169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0477		mg/L		95	80 - 120
Arsenic	0.0500	0.0537		mg/L		107	80 - 120
Barium	0.0500	0.0478		mg/L		96	80 - 120
Beryllium	0.0500	0.0485		mg/L		97	80 - 120
Boron	0.100	0.0927		mg/L		93	80 - 120
Cadmium	0.0500	0.0483		mg/L		97	80 - 120
Calcium	5.00	5.45		mg/L		109	80 - 120
Chromium	0.0500	0.0539		mg/L		108	80 - 120
Cobalt	0.0500	0.0514		mg/L		103	80 - 120
Lead	0.0500	0.0490		mg/L		98	80 - 120
Lithium	0.0500	0.0514		mg/L		103	80 - 120
Molybdenum	0.0500	0.0488		mg/L		98	80 - 120
Selenium	0.0500	0.0508		mg/L		102	80 - 120
Thallium	0.0100	0.00996		mg/L		100	80 - 120

Lab Sample ID: 400-129770-1 MS
Matrix: Water
Analysis Batch: 331169

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0495		mg/L		99	75 - 125
Arsenic	0.00046	U	0.0500	0.0554		mg/L		111	75 - 125
Barium	0.014		0.0500	0.0641		mg/L		99	75 - 125
Beryllium	0.00034	U	0.0500	0.0485		mg/L		97	75 - 125
Boron	0.021	U	0.100	0.115		mg/L		115	75 - 125
Cadmium	0.00034	U	0.0500	0.0510		mg/L		102	75 - 125
Calcium	0.80		5.00	6.40		mg/L		112	75 - 125
Chromium	0.0011	U	0.0500	0.0552		mg/L		110	75 - 125

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

Lab Sample ID: 400-129770-1 MS
Matrix: Water
Analysis Batch: 331169

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 330395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00049	I	0.0500	0.0540		mg/L		107	75 - 125
Lead	0.00035	U	0.0500	0.0492		mg/L		98	75 - 125
Lithium	0.0032	U	0.0500	0.0518		mg/L		104	75 - 125
Molybdenum	0.00085	U	0.0500	0.0488		mg/L		98	75 - 125
Selenium	0.00024	U	0.0500	0.0527		mg/L		105	75 - 125
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125

Lab Sample ID: 400-129770-1 MSD
Matrix: Water
Analysis Batch: 331169

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 330395

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	0.0484		mg/L		97	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0545		mg/L		109	75 - 125	2	20
Barium	0.014		0.0500	0.0636		mg/L		98	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0475		mg/L		95	75 - 125	2	20
Boron	0.021	U	0.100	0.112		mg/L		112	75 - 125	3	20
Cadmium	0.00034	U	0.0500	0.0497		mg/L		99	75 - 125	3	20
Calcium	0.80		5.00	6.36		mg/L		111	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0553		mg/L		111	75 - 125	0	20
Cobalt	0.00049	I	0.0500	0.0533		mg/L		106	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0488		mg/L		98	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0509		mg/L		102	75 - 125	2	20
Molybdenum	0.00085	U	0.0500	0.0488		mg/L		98	75 - 125	0	20
Selenium	0.00024	U	0.0500	0.0511		mg/L		102	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.00977		mg/L		98	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-330400/14-A
Matrix: Water
Analysis Batch: 330748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330400

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/09/16 10:39	11/11/16 13:11	1

Lab Sample ID: LCS 400-330400/15-A
Matrix: Water
Analysis Batch: 330748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000891		mg/L		88	80 - 120

Lab Sample ID: 400-129768-B-1-C MS
Matrix: Water
Analysis Batch: 330748

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 330400

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00187		mg/L		93	80 - 120

Lab Sample ID: 400-129768-B-1-D MSD
Matrix: Water
Analysis Batch: 330748

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 330400

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	0.00186		mg/L		93	80 - 120	1	20

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

Lab Sample ID: MB 400-330775/1
Matrix: Water
Analysis Batch: 330775

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			11/11/16 17:59	1

Lab Sample ID: LCS 400-330775/2
Matrix: Water
Analysis Batch: 330775

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-129768-A-4 DU
Matrix: Water
Analysis Batch: 330775

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	32		32.0		mg/L		0	5

Lab Sample ID: 400-129768-A-5 DU
Matrix: Water
Analysis Batch: 330775

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	530		534		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-331391/6
Matrix: Water
Analysis Batch: 331391

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			11/16/16 14:59	1

Lab Sample ID: LCS 400-331391/7
Matrix: Water
Analysis Batch: 331391

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	32.0		mg/L		107	90 - 110

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

Lab Sample ID: MRL 400-331391/3
Matrix: Water
Analysis Batch: 331391

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	1.45	I	mg/L		72	50 - 150		

Lab Sample ID: 400-129239-B-3 MS
Matrix: Water
Analysis Batch: 331391

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	10		10.0	21.8		mg/L		116	73 - 120		

Lab Sample ID: 400-129239-B-3 MSD
Matrix: Water
Analysis Batch: 331391

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	10		10.0	22.0		mg/L		118	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-332817/3
Matrix: Water
Analysis Batch: 332817

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			11/28/16 12:01	1

Lab Sample ID: LCS 400-332817/4
Matrix: Water
Analysis Batch: 332817

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	4.03		mg/L		101	90 - 110		

Lab Sample ID: 400-129768-A-3 MS
Matrix: Water
Analysis Batch: 332817

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	0.090	I	1.00	0.960		mg/L		87	75 - 125		

Lab Sample ID: 400-129768-A-3 MSD
Matrix: Water
Analysis Batch: 332817

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	0.090	I	1.00	0.960		mg/L		87	75 - 125	0	4

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-129770-3 DU
Matrix: Water
Analysis Batch: 332817

Client Sample ID: MW-108
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 400-333219/6
Matrix: Water
Analysis Batch: 333219

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			11/30/16 09:49	1

Lab Sample ID: LCS 400-333219/7
Matrix: Water
Analysis Batch: 333219

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 400-333219/3
Matrix: Water
Analysis Batch: 333219

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	4.14	I	mg/L		83	50 - 150		

Lab Sample ID: 400-130078-C-1 MS
Matrix: Water
Analysis Batch: 333219

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	1500		450	1440	J3	mg/L		-4	77 - 128		

Lab Sample ID: 400-130078-C-1 MSD
Matrix: Water
Analysis Batch: 333219

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	1500		450	1450	J3	mg/L		-2	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 Sarles	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: 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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	SSOW#:			

Analysis Requested

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, 4600_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-100	11/7/16	0919	G	Water			X	X	X	X		
MW-107	11/7/16	0801	G	Water			X	X	X	X		
MW-108	11/7/16	0713	G	Water			X	X	X	X		
MW-306	11/7/16	1028	G	Water			X	X	X	X		
MW-307	11/7/16	1135	G	Water			X	X	X	X		

400-129770 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:

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:	11/8/16 1515	RDH		11/8/16 1515	TA-Pen
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: 0.0°C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129770-1
SDG Number: Background

Login Number: 129770
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-129770-1
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-129770-2
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
12/14/2016 6:10:54 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
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.

Table of Contents

Cover Page 1
Table of Contents 2
Method Summary 3
Sample Summary 4
Client Sample Results 5
Definitions 10
Chronicle 11
QC Association 13
QC Sample Results 14
Chain of Custody 16
Receipt Checklists 17
Certification Summary 18

Method Summary

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

TestAmerica Job ID: 400-129770-2
SDG: Background

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

Protocol References:

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

Sample Summary

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

TestAmerica Job ID: 400-129770-2
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129770-1	MW-100	Water	11/07/16 09:19	11/08/16 15:15
400-129770-2	MW-107	Water	11/07/16 08:01	11/08/16 15:15
400-129770-3	MW-108	Water	11/07/16 07:13	11/08/16 15:15
400-129770-4	MW-306	Water	11/07/16 10:28	11/08/16 15:15
400-129770-5	MW-307	Water	11/07/16 11:35	11/08/16 15:15

Client Sample ID: MW-100
Date Collected: 11/07/16 09:19
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-1
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	**0.443**		0.218	0.222	1.00	0.276	pCi/L	11/11/16 10:54	12/11/16 15:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/11/16 10:54*	*12/11/16 15:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.159	U	0.256	0.256	1.00	0.433	pCi/L	11/11/16 11:54	12/09/16 15:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:50*	*1*
Y Carrier	*86.0*		*40 - 110*	*11/11/16 11:54*	*12/09/16 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	**0.602**		0.336	0.339	5.00	0.433	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-107
Date Collected: 11/07/16 08:01
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-2
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	**0.606**		0.273	0.278	1.00	0.310	pCi/L	11/11/16 10:54	12/10/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.213	U	0.278	0.279	1.00	0.462	pCi/L	11/11/16 11:54	12/09/16 15:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:50*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/11/16 11:54*	*12/09/16 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	**0.818**		0.390	0.394	5.00	0.462	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-108

Date Collected: 11/07/16 07:13
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-3

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	0.513		0.266	0.270	1.00	0.323	pCi/L	11/11/16 10:54	12/10/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.4*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.35		0.440	0.457	1.00	0.595	pCi/L	11/11/16 11:54	12/09/16 15:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.4*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:50*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/11/16 11:54*	*12/09/16 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	1.86		0.514	0.531	5.00	0.595	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-306

Date Collected: 11/07/16 10:28
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-4

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	**0.615**		0.294	0.300	1.00	0.364	pCi/L	11/11/16 10:54	12/10/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.368	U	0.306	0.308	1.00	0.487	pCi/L	11/11/16 11:54	12/09/16 15:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:50*	*1*
Y Carrier	*81.1*		*40 - 110*	*11/11/16 11:54*	*12/09/16 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	**0.983**		0.425	0.430	5.00	0.487	pCi/L		12/13/16 09:05	1

Client Sample ID: MW-307
Date Collected: 11/07/16 11:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-5
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	**0.349**		0.234	0.236	1.00	0.321	pCi/L	11/11/16 10:54	12/10/16 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.435	U	0.327	0.330	1.00	0.513	pCi/L	11/11/16 11:54	12/09/16 15:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:50*	*1*
Y Carrier	*81.1*		*40 - 110*	*11/11/16 11:54*	*12/09/16 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	**0.784**		0.402	0.406	5.00	0.513	pCi/L		12/13/16 09:05	1

Definitions/Glossary

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

TestAmerica Job ID: 400-129770-2
SDG: Background

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-129770-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 11/07/16 09:19
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 15:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: MW-107
Date Collected: 11/07/16 08:01
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283325	12/10/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: MW-108
Date Collected: 11/07/16 07:13
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283325	12/10/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Client Sample ID: MW-306
Date Collected: 11/07/16 10:28
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283325	12/10/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-129770-2
SDG: Background

Client Sample ID: MW-307

Date Collected: 11/07/16 11:35
Date Received: 11/08/16 15:15

Lab Sample ID: 400-129770-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278788	11/11/16 10:54	AS	TAL SL
Total/NA	Analysis	9315		1	283325	12/10/16 11:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278797	11/11/16 11:54	AS	TAL SL
Total/NA	Analysis	9320		1	283245	12/09/16 15:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283684	12/13/16 09:05	RTM	TAL SL

Laboratory References:

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

Rad

Prep Batch: 278788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	PrecSep-21	
400-129770-2	MW-107	Total/NA	Water	PrecSep-21	
400-129770-3	MW-108	Total/NA	Water	PrecSep-21	
400-129770-4	MW-306	Total/NA	Water	PrecSep-21	
400-129770-5	MW-307	Total/NA	Water	PrecSep-21	
MB 160-278788/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-278788/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-19941-P-4-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 278797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129770-1	MW-100	Total/NA	Water	PrecSep_0	
400-129770-2	MW-107	Total/NA	Water	PrecSep_0	
400-129770-3	MW-108	Total/NA	Water	PrecSep_0	
400-129770-4	MW-306	Total/NA	Water	PrecSep_0	
400-129770-5	MW-307	Total/NA	Water	PrecSep_0	
MB 160-278797/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-278797/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-19941-P-4-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-278788/1-A
Matrix: Water
Analysis Batch: 283324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278788

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04767	U	0.170	0.170	1.00	0.327	pCi/L	11/11/16 10:54	12/10/16 11:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*11/11/16 10:54*	*12/10/16 11:54*	*1*

Lab Sample ID: LCS 160-278788/2-A
Matrix: Water
Analysis Batch: 283324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278788

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	13.93		1.68	1.00	0.313	pCi/L	126	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*

Lab Sample ID: 160-19941-P-4-A DU
Matrix: Water
Analysis Batch: 283324

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 278788

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.262	U		0.3298	U	0.246	1.00	0.348	pCi/L			0.14	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*72.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-278797/1-A
Matrix: Water
Analysis Batch: 283245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278797

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2622	U	0.349	0.350	1.00	0.581	pCi/L	11/11/16 11:54	12/09/16 15:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:47*	*1*
Y Carrier	*77.8*		*40 - 110*	*11/11/16 11:54*	*12/09/16 15:47*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-278797/2-A
Matrix: Water
Analysis Batch: 283245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278797

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.2	15.97		1.78	1.00	0.525	pCi/L	113	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.2*		*40 - 110*
Y Carrier	*78.5*		*40 - 110*

Lab Sample ID: 160-19941-P-4-B DU
Matrix: Water
Analysis Batch: 283245

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 278797

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.206	U		-0.1626	U	0.311	1.00	0.578	pCi/L			0.55	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*72.6*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

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

Lab Sample ID: 400-129467-A-3 DU
Matrix: Water
Analysis Batch: 283684

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	0.632			0.9591		0.503	5.00	0.678	pCi/L			0.37	

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: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	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 - 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-100	11/7/16	0919	G	Water			X	X	X	X		
MW-107	11/7/16	0801	G	Water			X	X	X	X		
MW-108	11/7/16	0713	G	Water			X	X	X	X		
MW-306	11/7/16	1028	G	Water			X	X	X	X		
MW-307	11/7/16	1135	G	Water			X	X	X	X		

400-129770 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
		11/8/16 1515	RDH		11/8/16 1515	TB-Pace
	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: 0.0°C IR6

12/14/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129770-2
SDG Number: Background

Login Number: 129770
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C IR-6
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	

Certification Summary

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

TestAmerica Job ID: 400-129770-2
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-129770-2
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

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

TestAmerica Job ID: 400-129906-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

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

Attn: Kristi Mitchell

Authorized for release by:
12/14/2016 5:34:10 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 20
Chronicle 21
QC Association 25
QC Sample Results 30
Chain of Custody 39
Receipt Checklists 40
Certification Summary 41

Job ID: 400-129906-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129906-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-129906-1), MW-201 (400-129906-2), MW-204 (400-129906-5) and MW-206 (400-129906-7). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The interference check standard solution (ICSA) associated with batch 331889 had results for Chromium at a level greater than 2 times the reporting limit (RL). The associated samples are either Non-Detect (<RL) or >10x analyte result in ICSA (spiked samples) and have been qualified and reported.

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 330502 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 334164 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The method blank for analytical batch 334024 contained Chloride 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) SM 4500 SO4 E: Due to the high concentration of Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 333219 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 333388 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.

Detection Summary

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-129906-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium - DL	0.051		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	25		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	570		1.3	0.63	mg/L	25		6020	Total Recoverable
Selenium - DL	0.013		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Mercury	0.0012		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	3500		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	1200		60	18	mg/L	30		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	430		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.99				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-129906-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.0043	I	0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.083		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	39		2.0	0.84	mg/L	200		6020	Total Recoverable
Cadmium - DL	0.014		0.013	0.0017	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0035	I	0.013	0.0020	mg/L	25		6020	Total Recoverable
Selenium - DL	0.015		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00055	I	0.0025	0.00043	mg/L	25		6020	Total Recoverable
Calcium - DL2	760		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.0016		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	6200		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1800		80	24	mg/L	40		SM 4500 Cl- E	Total/NA
Fluoride	0.47		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	450		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.09				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-129906-3

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	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0013	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00087	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Boron - RA	0.19		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.000092	I	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-129906-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	56		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.59				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-129906-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00058	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0030		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00093	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.55		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.00013	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	59		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.74				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-129906-5

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	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00064	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	75		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.019		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0019		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0045		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00033	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	6.7		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	770		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	71		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.21		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	440		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.45				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205 — Lab Sample ID: 400-129906-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0083		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - RA	0.16		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	27		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.65				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-129906-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic - DL	0.011		0.0063	0.0023	mg/L	25		6020	Total Recoverable
Barium - DL	0.12		0.013	0.0025	mg/L	25		6020	Total Recoverable
Boron - DL	81		5.0	2.1	mg/L	500		6020	Total Recoverable
Cadmium - DL	0.0032	I	0.013	0.0017	mg/L	25		6020	Total Recoverable
Cobalt - DL	0.0057	I	0.013	0.0020	mg/L	25		6020	Total Recoverable
Lead - DL	0.010		0.0063	0.0018	mg/L	25		6020	Total Recoverable
Selenium - DL	0.020		0.0063	0.0012	mg/L	25		6020	Total Recoverable
Thallium - DL	0.00083	I	0.0025	0.00043	mg/L	25		6020	Total Recoverable
Calcium - DL2	2000		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.00099		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	13000		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	4800		240	72	mg/L	120		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	810		130	35	mg/L	25		SM 4500 SO4 E	Total/NA
Field pH	4.12				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-129906-8

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
Boron	0.20		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00088	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00055	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.00010	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-02 (Continued) — Lab Sample ID: 400-129906-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	16		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 400-129906-9

No Detections.

Client Sample ID: FB-02 — Lab Sample ID: 400-129906-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.000073	I	0.00020	0.000070	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

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

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 Plant Crist

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129906-1	MW-200	Water	11/09/16 11:27	11/09/16 15:51
400-129906-2	MW-201	Water	11/08/16 13:59	11/09/16 15:51
400-129906-3	MW-202	Water	11/08/16 12:28	11/09/16 15:51
400-129906-4	MW-203	Water	11/08/16 10:14	11/09/16 15:51
400-129906-5	MW-204	Water	11/08/16 13:32	11/09/16 15:51
400-129906-6	MW-205	Water	11/08/16 14:39	11/09/16 15:51
400-129906-7	MW-206	Water	11/09/16 09:04	11/09/16 15:51
400-129906-8	DUP-02	Water	11/08/16 11:28	11/09/16 15:51
400-129906-9	EB-02	Water	11/09/16 10:23	11/09/16 15:51
400-129906-10	FB-02	Water	11/09/16 09:12	11/09/16 15:51

Client Sample ID: MW-200

Date Collected: 11/09/16 11:27
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		11/14/16 08:55	11/17/16 15:37	25
Arsenic	0.0023	U	0.0063	0.0023	mg/L		11/14/16 08:55	11/17/16 15:37	25
Barium	**0.051**		0.013	0.0025	mg/L		11/14/16 08:55	11/17/16 15:37	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		11/14/16 08:55	11/17/16 15:37	25
Boron	**25**		2.0	0.84	mg/L		11/14/16 08:55	11/18/16 16:24	200
Cadmium	0.0017	U	0.013	0.0017	mg/L		11/14/16 08:55	11/17/16 15:37	25
Calcium	**570**		1.3	0.63	mg/L		11/14/16 08:55	11/17/16 15:37	25
Chromium	0.0055	U	0.013	0.0055	mg/L		11/14/16 08:55	11/17/16 15:37	25
Cobalt	0.0020	U	0.013	0.0020	mg/L		11/14/16 08:55	11/17/16 15:37	25
Lead	0.0018	U	0.0063	0.0018	mg/L		11/14/16 08:55	11/17/16 15:37	25
Lithium	0.016	U	0.025	0.016	mg/L		11/14/16 08:55	11/17/16 15:37	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		11/14/16 08:55	11/17/16 15:37	25
Selenium	**0.013**		0.0063	0.0012	mg/L		11/14/16 08:55	11/17/16 15:37	25
Thallium	0.00043	U	0.0025	0.00043	mg/L		11/14/16 08:55	11/17/16 15:37	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.000070	mg/L		11/10/16 08:28	11/15/16 13:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3500**		10	6.8	mg/L			11/12/16 15:56	1
Chloride	**1200**		60	18	mg/L			11/30/16 15:31	30
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			11/28/16 13:07	1
Sulfate	**430**		100	28	mg/L			12/01/16 14:06	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.99**				SU			11/09/16 11:27	1

Client Sample ID: MW-201
Date Collected: 11/08/16 13:59
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-2
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		11/14/16 08:55	11/17/16 15:46	25
Arsenic	**0.0043**	**I**	0.0063	0.0023	mg/L		11/14/16 08:55	11/17/16 15:46	25
Barium	**0.083**		0.013	0.0025	mg/L		11/14/16 08:55	11/17/16 15:46	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		11/14/16 08:55	11/17/16 15:46	25
Boron	**39**		2.0	0.84	mg/L		11/14/16 08:55	11/18/16 16:28	200
Cadmium	**0.014**		0.013	0.0017	mg/L		11/14/16 08:55	11/17/16 15:46	25
Chromium	0.0055	U	0.013	0.0055	mg/L		11/14/16 08:55	11/17/16 15:46	25
Cobalt	**0.0035**	**I**	0.013	0.0020	mg/L		11/14/16 08:55	11/17/16 15:46	25
Lead	0.0018	U	0.0063	0.0018	mg/L		11/14/16 08:55	11/17/16 15:46	25
Lithium	0.016	U	0.025	0.016	mg/L		11/14/16 08:55	11/17/16 15:46	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		11/14/16 08:55	11/17/16 15:46	25
Selenium	**0.015**		0.0063	0.0012	mg/L		11/14/16 08:55	11/17/16 15:46	25
Thallium	**0.00055**	**I**	0.0025	0.00043	mg/L		11/14/16 08:55	11/17/16 15:46	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**760**		10	5.0	mg/L		11/14/16 08:55	11/17/16 15:42	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0016**		0.00020	0.000070	mg/L		11/10/16 15:27	11/15/16 13:58	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6200**		25	17	mg/L			11/11/16 17:59	1
Chloride	**1800**		80	24	mg/L			11/30/16 16:14	40
Fluoride	**0.47**		0.10	0.032	mg/L			11/28/16 13:10	1
Sulfate	**450**		100	28	mg/L			11/30/16 15:23	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.09**				SU			11/08/16 13:59	1

Client Sample ID: MW-202

Date Collected: 11/08/16 12:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-3

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		11/14/16 08:55	11/17/16 16:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 16:18	5
Barium	**0.018**		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 16:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:18	5
Calcium	**4.7**		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 16:18	5
Chromium	**0.0013**	**I**	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 16:18	5
Cobalt	**0.00087**	**I**	0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 16:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 16:18	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 16:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 16:18	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 16:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 16:18	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.19**		0.050	0.021	mg/L		11/14/16 08:55	11/18/16 16:33	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000092**	**I**	0.00020	0.000070	mg/L		11/10/16 15:27	11/15/16 14:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**56**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**12**		2.0	0.60	mg/L			11/30/16 14:45	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/16 18:01	1
Sulfate	**15**		5.0	1.4	mg/L			11/30/16 14:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.59**				SU			11/08/16 12:28	1

Client Sample ID: MW-203

Date Collected: 11/08/16 10:14
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-4

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		11/14/16 08:55	11/17/16 16:27	5
Arsenic	**0.00058**	**I**	0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 16:27	5
Barium	**0.043**		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 16:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:27	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:27	5
Calcium	**16**		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 16:27	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 16:27	5
Cobalt	**0.0030**		0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 16:27	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 16:27	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 16:27	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 16:27	5
Selenium	**0.00093**	**I**	0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 16:27	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 16:27	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.55**		0.050	0.021	mg/L		11/14/16 08:55	11/18/16 16:37	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00013**	**I**	0.00020	0.000070	mg/L		11/10/16 15:27	11/15/16 14:08	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**12**		2.0	0.60	mg/L			11/30/16 14:45	1
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			12/06/16 18:04	1
Sulfate	**59**		10	2.8	mg/L			11/30/16 15:23	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.74**				SU			11/08/16 10:14	1

Client Sample ID: MW-204

Date Collected: 11/08/16 13:32
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-5

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		11/14/16 08:55	11/17/16 16:36	5
Arsenic	**0.0049**		0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 16:36	5
Barium	**0.026**		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 16:36	5
Beryllium	**0.00064**	**I**	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:36	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:36	5
Calcium	**75**		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 16:36	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 16:36	5
Cobalt	**0.019**		0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 16:36	5
Lead	**0.0019**		0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 16:36	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 16:36	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 16:36	5
Selenium	**0.0045**		0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 16:36	5
Thallium	**0.00033**	**I**	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 16:36	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.7**		0.25	0.11	mg/L		11/14/16 08:55	11/18/16 16:42	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		11/10/16 15:27	11/15/16 14:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**770**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**71**		4.0	1.2	mg/L			11/30/16 15:25	2
Fluoride	**0.21**		0.10	0.032	mg/L			12/06/16 18:08	1
Sulfate	**440**		100	28	mg/L			12/01/16 13:59	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.45**				SU			11/08/16 13:32	1

Client Sample ID: MW-205

Date Collected: 11/08/16 14:39
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-6

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		11/14/16 08:55	11/17/16 16:45	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 16:45	5
Barium	**0.0083**		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 16:45	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:45	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 16:45	5
Calcium	**18**		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 16:45	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 16:45	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 16:45	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 16:45	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 16:45	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 16:45	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 16:45	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 16:45	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.16**		0.050	0.021	mg/L		11/14/16 08:55	11/18/16 16:46	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		11/10/16 15:27	11/15/16 14:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**100**		5.0	3.4	mg/L			11/11/16 17:59	1
Chloride	**5.9**		2.0	0.60	mg/L			11/30/16 14:45	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/16 18:10	1
Sulfate	**27**		5.0	1.4	mg/L			12/01/16 12:02	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.65**				SU			11/08/16 14:39	1

Client Sample Results

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Client Sample ID: MW-206
Date Collected: 11/09/16 09:04
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-7
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0050	U	0.013	0.0050	mg/L		11/14/16 08:55	11/17/16 16:54	25
Arsenic	**0.011**		0.0063	0.0023	mg/L		11/14/16 08:55	11/17/16 16:54	25
Barium	**0.12**		0.013	0.0025	mg/L		11/14/16 08:55	11/17/16 16:54	25
Beryllium	0.0017	U	0.013	0.0017	mg/L		11/14/16 08:55	11/17/16 16:54	25
Boron	**81**		5.0	2.1	mg/L		11/14/16 08:55	11/18/16 16:51	500
Cadmium	**0.0032**	**I**	0.013	0.0017	mg/L		11/14/16 08:55	11/17/16 16:54	25
Chromium	0.0055	U	0.013	0.0055	mg/L		11/14/16 08:55	11/17/16 16:54	25
Cobalt	**0.0057**	**I**	0.013	0.0020	mg/L		11/14/16 08:55	11/17/16 16:54	25
Lead	**0.010**		0.0063	0.0018	mg/L		11/14/16 08:55	11/17/16 16:54	25
Lithium	0.016	U	0.025	0.016	mg/L		11/14/16 08:55	11/17/16 16:54	25
Molybdenum	0.0043	U	0.075	0.0043	mg/L		11/14/16 08:55	11/17/16 16:54	25
Selenium	**0.020**		0.0063	0.0012	mg/L		11/14/16 08:55	11/17/16 16:54	25
Thallium	**0.00083**	**I**	0.0025	0.00043	mg/L		11/14/16 08:55	11/17/16 16:54	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**2000**		10	5.0	mg/L		11/14/16 08:55	11/17/16 16:49	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00099**		0.00020	0.000070	mg/L		11/10/16 15:27	11/15/16 14:12	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**13000**		50	34	mg/L			11/12/16 15:56	1
Chloride	**4800**		240	72	mg/L			12/06/16 16:55	120
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			12/07/16 15:28	1
Sulfate	**810**		130	35	mg/L			12/01/16 15:04	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.12**				SU			11/09/16 09:04	1

Client Sample ID: DUP-02

Date Collected: 11/08/16 11:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-8

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		11/14/16 08:55	11/18/16 16:55	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/18/16 16:55	5
Barium	**0.018**		0.0025	0.00049	mg/L		11/14/16 08:55	11/18/16 16:55	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/18/16 16:55	5
Boron	**0.20**		0.050	0.021	mg/L		11/14/16 08:55	11/18/16 16:55	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/18/16 16:55	5
Calcium	**4.7**		0.25	0.13	mg/L		11/14/16 08:55	11/18/16 16:55	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/18/16 16:55	5
Cobalt	**0.00088**	**I**	0.0025	0.00040	mg/L		11/14/16 08:55	11/18/16 16:55	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/18/16 16:55	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/18/16 16:55	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/18/16 16:55	5
Selenium	**0.00055**	**I**	0.0013	0.00024	mg/L		11/14/16 08:55	11/18/16 16:55	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/18/16 16:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00010**	**I**	0.00020	0.000070	mg/L		11/10/16 15:27	11/15/16 14:26	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**48**		5.0	3.4	mg/L			11/12/16 15:56	1
Chloride	**13**		2.0	0.60	mg/L			11/30/16 14:45	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/16 18:13	1
Sulfate	**16**		5.0	1.4	mg/L			12/01/16 12:02	1

Client Sample ID: EB-02

Date Collected: 11/09/16 10:23
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-9

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		11/14/16 08:55	11/17/16 17:25	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 17:25	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 17:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 17:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 17:25	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 08:55	11/17/16 17:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 17:25	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 17:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 17:25	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 17:25	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 17:25	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 17:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 17:25	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		11/14/16 08:55	11/18/16 17:22	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		11/10/16 15:27	11/15/16 14:14	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			11/12/16 15:56	1
Chloride	0.60	U	2.0	0.60	mg/L			12/01/16 11:24	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/16 19:09	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/01/16 11:31	1

Client Sample ID: FB-02

Date Collected: 11/09/16 09:12
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-10

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		11/14/16 08:55	11/17/16 17:30	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 17:30	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 17:30	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 17:30	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 17:30	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 08:55	11/17/16 17:30	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 17:30	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 17:30	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 17:30	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 17:30	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 17:30	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 17:30	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 17:30	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		11/14/16 08:55	11/18/16 17:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000073**	**I**	0.00020	0.000070	mg/L		11/10/16 15:27	11/15/16 14:16	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			11/12/16 15:56	1
Chloride	0.60	U	2.0	0.60	mg/L			12/01/16 11:24	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/16 19:12	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/01/16 11:31	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-200

Date Collected: 11/09/16 11:27
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331606	11/17/16 15:37	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	331889	11/18/16 16:24	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 08:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 13:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330815	11/12/16 15:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		30	333223	11/30/16 15:31	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 13:07	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	333388	12/01/16 14:06	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/09/16 11:27	BWS	TAL PEN

Client Sample ID: MW-201

Date Collected: 11/08/16 13:59
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL2		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	331606	11/17/16 15:42	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331606	11/17/16 15:46	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	331889	11/18/16 16:28	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 13:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		40	333223	11/30/16 16:14	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	332817	11/28/16 13:10	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	333219	11/30/16 15:23	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 13:59	BWS	TAL PEN

Client Sample ID: MW-202

Date Collected: 11/08/16 12:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 16:18	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 16:33	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:07	JAP	TAL PEN

Client Sample ID: MW-202

Date Collected: 11/08/16 12:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 14:45	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 18:01	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333219	11/30/16 14:34	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 12:28	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 11/08/16 10:14
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 16:27	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 16:37	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 14:45	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 18:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	333219	11/30/16 15:23	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 10:14	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 11/08/16 13:32
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 16:36	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331889	11/18/16 16:42	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	333223	11/30/16 15:25	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 18:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	333388	12/01/16 13:59	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 13:32	BWS	TAL PEN

Client Sample ID: MW-205

Date Collected: 11/08/16 14:39
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 16:45	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 16:46	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330775	11/11/16 17:59	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 14:45	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 18:10	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 12:02	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/08/16 14:39	BWS	TAL PEN

Client Sample ID: MW-206

Date Collected: 11/09/16 09:04
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL2		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	331606	11/17/16 16:49	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331606	11/17/16 16:54	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	500	331889	11/18/16 16:51	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330815	11/12/16 15:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		120	334024	12/06/16 16:55	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 15:28	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		25	333388	12/01/16 15:04	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/09/16 09:04	BWS	TAL PEN

Client Sample ID: DUP-02

Date Collected: 11/08/16 11:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331889	11/18/16 16:55	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:26	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330815	11/12/16 15:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333223	11/30/16 14:45	SEH	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-02
Date Collected: 11/08/16 11:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-8
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	333983	12/06/16 18:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 12:02	SEH	TAL PEN

Client Sample ID: EB-02
Date Collected: 11/09/16 10:23
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 17:25	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 17:22	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330815	11/12/16 15:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:24	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 19:09	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 11:31	SEH	TAL PEN

Client Sample ID: FB-02
Date Collected: 11/09/16 09:12
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 17:30	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 17:27	AJR	TAL PEN
Total/NA	Prep	7470A			330502	11/10/16 15:27	JAP	TAL PEN
Total/NA	Analysis	7470A		1	331162	11/15/16 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330815	11/12/16 15:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:24	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 19:12	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 11:31	SEH	TAL PEN

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

Metals

Prep Batch: 330502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	7470A	
400-129906-2	MW-201	Total/NA	Water	7470A	
400-129906-3	MW-202	Total/NA	Water	7470A	
400-129906-4	MW-203	Total/NA	Water	7470A	
400-129906-5	MW-204	Total/NA	Water	7470A	
400-129906-6	MW-205	Total/NA	Water	7470A	
400-129906-7	MW-206	Total/NA	Water	7470A	
400-129906-8	DUP-02	Total/NA	Water	7470A	
400-129906-9	EB-02	Total/NA	Water	7470A	
400-129906-10	FB-02	Total/NA	Water	7470A	
MB 400-330502/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-330502/15-A	Lab Control Sample	Total/NA	Water	7470A	
490-115498-D-2-B MS	Matrix Spike	Total/NA	Water	7470A	
490-115498-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 330900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-129906-2 - DL2	MW-201	Total Recoverable	Water	3005A	
400-129906-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-129906-3	MW-202	Total Recoverable	Water	3005A	
400-129906-3 - RA	MW-202	Total Recoverable	Water	3005A	
400-129906-4	MW-203	Total Recoverable	Water	3005A	
400-129906-4 - RA	MW-203	Total Recoverable	Water	3005A	
400-129906-5	MW-204	Total Recoverable	Water	3005A	
400-129906-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-129906-6	MW-205	Total Recoverable	Water	3005A	
400-129906-6 - RA	MW-205	Total Recoverable	Water	3005A	
400-129906-7 - DL2	MW-206	Total Recoverable	Water	3005A	
400-129906-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-129906-8	DUP-02	Total Recoverable	Water	3005A	
400-129906-9	EB-02	Total Recoverable	Water	3005A	
400-129906-9 - RA	EB-02	Total Recoverable	Water	3005A	
400-129906-10	FB-02	Total Recoverable	Water	3005A	
400-129906-10 - RA	FB-02	Total Recoverable	Water	3005A	
MB 400-330900/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-330900/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-129942-B-4-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-129942-B-4-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 331162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	7470A	330502
400-129906-2	MW-201	Total/NA	Water	7470A	330502
400-129906-3	MW-202	Total/NA	Water	7470A	330502
400-129906-4	MW-203	Total/NA	Water	7470A	330502
400-129906-5	MW-204	Total/NA	Water	7470A	330502
400-129906-6	MW-205	Total/NA	Water	7470A	330502
400-129906-7	MW-206	Total/NA	Water	7470A	330502
400-129906-8	DUP-02	Total/NA	Water	7470A	330502
400-129906-9	EB-02	Total/NA	Water	7470A	330502

Metals (Continued)

Analysis Batch: 331162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-10	FB-02	Total/NA	Water	7470A	330502
MB 400-330502/14-A	Method Blank	Total/NA	Water	7470A	330502
LCS 400-330502/15-A	Lab Control Sample	Total/NA	Water	7470A	330502
490-115498-D-2-B MS	Matrix Spike	Total/NA	Water	7470A	330502
490-115498-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	330502

Analysis Batch: 331378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-330900/1-A ^5	Method Blank	Total Recoverable	Water	6020	330900
LCS 400-330900/2-A	Lab Control Sample	Total Recoverable	Water	6020	330900
400-129942-B-4-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	330900
400-129942-B-4-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	330900

Analysis Batch: 331606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1 - DL	MW-200	Total Recoverable	Water	6020	330900
400-129906-2 - DL2	MW-201	Total Recoverable	Water	6020	330900
400-129906-2 - DL	MW-201	Total Recoverable	Water	6020	330900
400-129906-3	MW-202	Total Recoverable	Water	6020	330900
400-129906-4	MW-203	Total Recoverable	Water	6020	330900
400-129906-5	MW-204	Total Recoverable	Water	6020	330900
400-129906-6	MW-205	Total Recoverable	Water	6020	330900
400-129906-7 - DL2	MW-206	Total Recoverable	Water	6020	330900
400-129906-7 - DL	MW-206	Total Recoverable	Water	6020	330900
400-129906-9	EB-02	Total Recoverable	Water	6020	330900
400-129906-10	FB-02	Total Recoverable	Water	6020	330900

Analysis Batch: 331889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1 - DL	MW-200	Total Recoverable	Water	6020	330900
400-129906-2 - DL	MW-201	Total Recoverable	Water	6020	330900
400-129906-3 - RA	MW-202	Total Recoverable	Water	6020	330900
400-129906-4 - RA	MW-203	Total Recoverable	Water	6020	330900
400-129906-5 - DL	MW-204	Total Recoverable	Water	6020	330900
400-129906-6 - RA	MW-205	Total Recoverable	Water	6020	330900
400-129906-7 - DL	MW-206	Total Recoverable	Water	6020	330900
400-129906-8	DUP-02	Total Recoverable	Water	6020	330900
400-129906-9 - RA	EB-02	Total Recoverable	Water	6020	330900
400-129906-10 - RA	FB-02	Total Recoverable	Water	6020	330900

General Chemistry

Analysis Batch: 330775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-2	MW-201	Total/NA	Water	SM 2540C	
400-129906-3	MW-202	Total/NA	Water	SM 2540C	
400-129906-4	MW-203	Total/NA	Water	SM 2540C	
400-129906-5	MW-204	Total/NA	Water	SM 2540C	
400-129906-6	MW-205	Total/NA	Water	SM 2540C	
MB 400-330775/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 330775 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-330775/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129768-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-129768-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 330815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	SM 2540C	
400-129906-7	MW-206	Total/NA	Water	SM 2540C	
400-129906-8	DUP-02	Total/NA	Water	SM 2540C	
400-129906-9	EB-02	Total/NA	Water	SM 2540C	
400-129906-10	FB-02	Total/NA	Water	SM 2540C	
MB 400-330815/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-330815/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129835-I-5 DU	Duplicate	Total/NA	Water	SM 2540C	
400-129835-J-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 332817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	SM 4500 F C	
400-129906-2	MW-201	Total/NA	Water	SM 4500 F C	
MB 400-332817/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-332817/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129768-A-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-129768-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-129770-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 333219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-129906-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-129906-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
MB 400-333219/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-333219/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-333219/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-130078-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-130078-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 333223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-129906-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-129906-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-129906-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-129906-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-129906-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-129906-8	DUP-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-333223/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-333223/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-333223/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-129906-6 MS	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-129906-6 MSD	MW-205	Total/NA	Water	SM 4500 Cl- E	

QC Association Summary

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

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Analysis Batch: 333384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-9	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-129906-10	FB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-333384/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-333384/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-333384/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-129952-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-129952-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 333388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-129906-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-129906-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-129906-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-129906-8	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-129906-9	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-129906-10	FB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-333388/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-333388/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-333388/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-129952-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-129952-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 333983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-3	MW-202	Total/NA	Water	SM 4500 F C	
400-129906-4	MW-203	Total/NA	Water	SM 4500 F C	
400-129906-5	MW-204	Total/NA	Water	SM 4500 F C	
400-129906-6	MW-205	Total/NA	Water	SM 4500 F C	
400-129906-8	DUP-02	Total/NA	Water	SM 4500 F C	
400-129906-9	EB-02	Total/NA	Water	SM 4500 F C	
400-129906-10	FB-02	Total/NA	Water	SM 4500 F C	
MB 400-333983/14	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-333983/13	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129822-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-129822-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-129822-B-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 334024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
MB 400-334024/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-334024/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-334024/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-130141-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-130141-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 334164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-7	MW-206	Total/NA	Water	SM 4500 F C	
MB 400-334164/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-334164/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129906-7 MS	MW-206	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 334164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-7 MSD	MW-206	Total/NA	Water	SM 4500 F C	
400-129952-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 334832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	Field Sampling	
400-129906-2	MW-201	Total/NA	Water	Field Sampling	
400-129906-3	MW-202	Total/NA	Water	Field Sampling	
400-129906-4	MW-203	Total/NA	Water	Field Sampling	
400-129906-5	MW-204	Total/NA	Water	Field Sampling	
400-129906-6	MW-205	Total/NA	Water	Field Sampling	
400-129906-7	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-330900/1-A ^5
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		11/14/16 08:55	11/16/16 14:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/16/16 14:39	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 08:55	11/16/16 14:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/16/16 14:39	5
Boron	0.021	U	0.050	0.021	mg/L		11/14/16 08:55	11/16/16 14:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/16/16 14:39	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 08:55	11/16/16 14:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/16/16 14:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 08:55	11/16/16 14:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/16/16 14:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/16/16 14:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/16/16 14:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/16/16 14:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/16/16 14:39	5

Lab Sample ID: LCS 400-330900/2-A
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0496		mg/L		99	80 - 120
Arsenic	0.0500	0.0498		mg/L		100	80 - 120
Barium	0.0500	0.0487		mg/L		97	80 - 120
Beryllium	0.0500	0.0446		mg/L		89	80 - 120
Boron	0.100	0.0897		mg/L		90	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0479		mg/L		96	80 - 120
Cobalt	0.0500	0.0483		mg/L		97	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Lithium	0.0500	0.0474		mg/L		95	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Selenium	0.0500	0.0483		mg/L		97	80 - 120
Thallium	0.0100	0.00986		mg/L		99	80 - 120

Lab Sample ID: 400-129942-B-4-B MS ^25
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0050	U	0.0500	0.0522		mg/L		104	75 - 125
Arsenic	0.31		0.0500	0.360		mg/L		99	75 - 125
Barium	0.056		0.0500	0.103		mg/L		96	75 - 125
Beryllium	0.0017	U	0.0500	0.0462		mg/L		92	75 - 125
Boron	1.6		0.100	1.70		mg/L		86	75 - 125
Cadmium	0.0017	U	0.0500	0.0471		mg/L		94	75 - 125
Calcium	100		5.00	104	J3	mg/L		72	75 - 125
Chromium	0.0055	U	0.0500	0.0465		mg/L		93	75 - 125

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

Lab Sample ID: 400-129942-B-4-B MS ^25
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0042	I	0.0500	0.0517		mg/L		95	75 - 125
Lead	0.0018	U	0.0500	0.0472		mg/L		94	75 - 125
Lithium	0.050		0.0500	0.0980		mg/L		95	75 - 125
Molybdenum	0.017	I	0.0500	0.0656	I	mg/L		98	75 - 125
Selenium	0.0012	U	0.0500	0.0615		mg/L		123	75 - 125
Thallium	0.00043	U	0.0100	0.00963		mg/L		96	75 - 125

Lab Sample ID: 400-129942-B-4-C MSD ^25
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0050	U	0.0500	0.0483		mg/L		97	75 - 125	8	20
Arsenic	0.31		0.0500	0.361		mg/L		101	75 - 125	0	20
Barium	0.056		0.0500	0.105		mg/L		99	75 - 125	1	20
Beryllium	0.0017	U	0.0500	0.0467		mg/L		93	75 - 125	1	20
Boron	1.6		0.100	1.74	J3	mg/L		126	75 - 125	2	20
Cadmium	0.0017	U	0.0500	0.0475		mg/L		95	75 - 125	1	20
Calcium	100		5.00	105		mg/L		82	75 - 125	0	20
Chromium	0.0055	U	0.0500	0.0459		mg/L		92	75 - 125	1	20
Cobalt	0.0042	I	0.0500	0.0512		mg/L		94	75 - 125	1	20
Lead	0.0018	U	0.0500	0.0480		mg/L		96	75 - 125	2	20
Lithium	0.050		0.0500	0.0956		mg/L		90	75 - 125	3	20
Molybdenum	0.017	I	0.0500	0.0671	I	mg/L		101	75 - 125	2	20
Selenium	0.0012	U	0.0500	0.0562		mg/L		112	75 - 125	9	20
Thallium	0.00043	U	0.0100	0.00985		mg/L		99	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-330502/14-A
Matrix: Water
Analysis Batch: 331162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 330502

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/10/16 08:26	11/15/16 13:09	1

Lab Sample ID: LCS 400-330502/15-A
Matrix: Water
Analysis Batch: 331162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 330502

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000921		mg/L		91	80 - 120

Lab Sample ID: 490-115498-D-2-B MS
Matrix: Water
Analysis Batch: 331162

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 330502

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00158	J3	mg/L		78	80 - 120

Lab Sample ID: 490-115498-D-2-C MSD
Matrix: Water
Analysis Batch: 331162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 330502

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	0.00160	J3	mg/L		79	80 - 120	1	20

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

Lab Sample ID: MB 400-330775/1
Matrix: Water
Analysis Batch: 330775

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			11/11/16 17:59	1

Lab Sample ID: LCS 400-330775/2
Matrix: Water
Analysis Batch: 330775

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-129768-A-4 DU
Matrix: Water
Analysis Batch: 330775

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	32		32.0		mg/L		0	5

Lab Sample ID: 400-129768-A-5 DU
Matrix: Water
Analysis Batch: 330775

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	530		534		mg/L		0	5

Lab Sample ID: MB 400-330815/1
Matrix: Water
Analysis Batch: 330815

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			11/12/16 15:56	1

Lab Sample ID: LCS 400-330815/2
Matrix: Water
Analysis Batch: 330815

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-129835-I-5 DU
Matrix: Water
Analysis Batch: 330815

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	1100		1120		mg/L		0.5	5

Lab Sample ID: 400-129835-J-4 DU
Matrix: Water
Analysis Batch: 330815

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	1100		1110		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-333223/6
Matrix: Water
Analysis Batch: 333223

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			11/30/16 09:47	1

Lab Sample ID: LCS 400-333223/7
Matrix: Water
Analysis Batch: 333223

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 400-333223/3
Matrix: Water
Analysis Batch: 333223

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	1.93	I	mg/L		97	50 - 150

Lab Sample ID: 400-129906-6 MS
Matrix: Water
Analysis Batch: 333223

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.9		10.0	17.5		mg/L		116	73 - 120

Lab Sample ID: 400-129906-6 MSD
Matrix: Water
Analysis Batch: 333223

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.9		10.0	17.3		mg/L		114	73 - 120	2	8

Lab Sample ID: MB 400-333384/5
Matrix: Water
Analysis Batch: 333384

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			12/01/16 09:39	1

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

Lab Sample ID: LCS 400-333384/7
Matrix: Water
Analysis Batch: 333384

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	32.7		mg/L		109	90 - 110

Lab Sample ID: MRL 400-333384/3
Matrix: Water
Analysis Batch: 333384

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	1.07	I	mg/L		54	50 - 150

Lab Sample ID: 400-129952-A-6 MS
Matrix: Water
Analysis Batch: 333384

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	3.9		10.0	15.4		mg/L		115	73 - 120

Lab Sample ID: 400-129952-A-6 MSD
Matrix: Water
Analysis Batch: 333384

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	3.9		10.0	15.4		mg/L		115	73 - 120	0	8

Lab Sample ID: MB 400-334024/6
Matrix: Water
Analysis Batch: 334024

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.766	I	2.0	0.60	mg/L			12/06/16 15:28	1

Lab Sample ID: LCS 400-334024/7
Matrix: Water
Analysis Batch: 334024

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 400-334024/3
Matrix: Water
Analysis Batch: 334024

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	2.87		mg/L		143	50 - 150

Lab Sample ID: 400-130141-B-1 MS
Matrix: Water
Analysis Batch: 334024

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	9.2		10.0	20.0		mg/L		108	73 - 120

Lab Sample ID: 400-130141-B-1 MSD
Matrix: Water
Analysis Batch: 334024

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	9.2		10.0	19.4		mg/L		102	73 - 120	3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-332817/3
Matrix: Water
Analysis Batch: 332817

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			11/28/16 12:01	1

Lab Sample ID: LCS 400-332817/4
Matrix: Water
Analysis Batch: 332817

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	4.03		mg/L		101	90 - 110

Lab Sample ID: 400-129768-A-3 MS
Matrix: Water
Analysis Batch: 332817

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	0.090	I	1.00	0.960		mg/L		87	75 - 125

Lab Sample ID: 400-129768-A-3 MSD
Matrix: Water
Analysis Batch: 332817

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	0.090	I	1.00	0.960		mg/L		87	75 - 125	0	4

Lab Sample ID: 400-129770-A-3 DU
Matrix: Water
Analysis Batch: 332817

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 400-333983/14
Matrix: Water
Analysis Batch: 333983

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			12/06/16 17:44	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-333983/13
Matrix: Water
Analysis Batch: 333983

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	4.11		mg/L		103	90 - 110		

Lab Sample ID: 400-129822-B-1 MS
Matrix: Water
Analysis Batch: 333983

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	0.040	I	1.00	1.00		mg/L		96	75 - 125		

Lab Sample ID: 400-129822-B-1 MSD
Matrix: Water
Analysis Batch: 333983

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	0.040	I	1.00	0.980		mg/L		94	75 - 125	2	4

Lab Sample ID: 400-129822-B-3 DU
Matrix: Water
Analysis Batch: 333983

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	68			68.2		mg/L				0	4

Lab Sample ID: MB 400-334164/15
Matrix: Water
Analysis Batch: 334164

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			12/07/16 15:20	1

Lab Sample ID: LCS 400-334164/14
Matrix: Water
Analysis Batch: 334164

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	4.03		mg/L		101	90 - 110		

Lab Sample ID: 400-129906-7 MS
Matrix: Water
Analysis Batch: 334164

Client Sample ID: MW-206
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	0.170	J3	mg/L		13	75 - 125		

Lab Sample ID: 400-129906-7 MSD
Matrix: Water
Analysis Batch: 334164

Client Sample ID: MW-206
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	0.160	J3	mg/L		12	75 - 125	6	4

Lab Sample ID: 400-129952-A-3 DU
Matrix: Water
Analysis Batch: 334164

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 400-333219/6
Matrix: Water
Analysis Batch: 333219

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			11/30/16 09:49	1

Lab Sample ID: LCS 400-333219/7
Matrix: Water
Analysis Batch: 333219

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 400-333219/3
Matrix: Water
Analysis Batch: 333219

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	4.14	I	mg/L		83	50 - 150

Lab Sample ID: 400-130078-C-1 MS
Matrix: Water
Analysis Batch: 333219

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	1500		450	1440	J3	mg/L		-4	77 - 128

Lab Sample ID: 400-130078-C-1 MSD
Matrix: Water
Analysis Batch: 333219

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	1500		450	1450	J3	mg/L		-2	77 - 128	1	5

Lab Sample ID: MB 400-333388/6
Matrix: Water
Analysis Batch: 333388

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			12/01/16 09:41	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-333388/7
Matrix: Water
Analysis Batch: 333388

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 400-333388/3
Matrix: Water
Analysis Batch: 333388

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	4.31	I	mg/L		86	50 - 150

Lab Sample ID: 400-129952-A-6 MS
Matrix: Water
Analysis Batch: 333388

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	1.4	U	1000	10.3	J3	mg/L		1	77 - 128

Lab Sample ID: 400-129952-A-6 MSD
Matrix: Water
Analysis Batch: 333388

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	1.4	U	1000	10.3	J3	mg/L		1	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 Surles	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: 1 - 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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	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 - 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-200	11/9/16	1127	G	Water			Y	X	X	X		
MW-201	11/8/16	1359	G	Water			Y	Y	X	X		
MW-202	11/8/16	1228	G	Water			X	X	X	X		
MW-203	11/8/16	1014	G	Water			X	X	X	X		
MW-204	11/8/16	1332	G	Water			X	X	X	X		
MW-205	11/8/16	1439	G	Water			X	X	X	X		
MW-206	11/9/16	0904	G	Water			X	X	X	X		
Dup-02	11/8/16	1128	G	water			X	X	X	X		
EB-02	11/9/16	1023	G	water			X	X	X	X		
FB-02	11/9/16	0912	G	water			X	X	X	X		

400-129906 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]	11/9/16 1551	TDH			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 11/09/16 1551	Company TD

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.7°C, 4.1°C IR 5

12/14/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129906-1
SDG Number: Gypsum Storage Area

Login Number: 129906
List Number: 1
Creator: Hughes, Nicholas T

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	3.7°C, 4.1°C IR-5
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-129906-2
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
12/21/2016 9:19:48 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 16
Chronicle 17
QC Association 20
QC Sample Results 21
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-129906-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129906-2

RAD

Method(s) 9315: Radium-226 Batch: 279376. The radium-226 detection goal was not met for the following sample due to a reduced aliquot which can be attributed to the presence of matrix interferences (reference NCM 100373): MW-206 (400-129906-7). Analytical results are reported with the detection limit achieved.

Method(s) 9320: Radium-226 Batch: 279386. The radium-228 detection goal was not met for the following sample due to a reduced aliquot which can be attributed to the presence of matrix interferences (reference NCM 100371): MW-206 (400-129906-7). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-279122: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with MW-200 (400-129906-1), MW-201 (400-129906-2), MW-202 (400-129906-3), MW-203 (400-129906-4), MW-204 (400-129906-5), MW-205 (400-129906-6), DUP-02 (400-129906-8), EB-02 (400-129906-9) and FB-02 (400-129906-10). 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 160-279386: the following sample was prepared at a reduced aliquot due to large crystals MW-206 (400-129906-7) .

Method(s) PrecSep-21: Radium-226 Prep Batch 160-279118: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with MW-200 (400-129906-1), MW-201 (400-129906-2), MW-202 (400-129906-3), MW-203 (400-129906-4), MW-204 (400-129906-5), MW-205 (400-129906-6), DUP-02 (400-129906-8), EB-02 (400-129906-9) and FB-02 (400-129906-10). 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 160-279376: The following sample was prepared at a reduced aliquot due to large crystals MW-206 (400-129906-7).

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129906-1	MW-200	Water	11/09/16 11:27	11/09/16 15:51
400-129906-2	MW-201	Water	11/08/16 13:59	11/09/16 15:51
400-129906-3	MW-202	Water	11/08/16 12:28	11/09/16 15:51
400-129906-4	MW-203	Water	11/08/16 10:14	11/09/16 15:51
400-129906-5	MW-204	Water	11/08/16 13:32	11/09/16 15:51
400-129906-6	MW-205	Water	11/08/16 14:39	11/09/16 15:51
400-129906-7	MW-206	Water	11/09/16 09:04	11/09/16 15:51
400-129906-8	DUP-02	Water	11/08/16 11:28	11/09/16 15:51
400-129906-9	EB-02	Water	11/09/16 10:23	11/09/16 15:51
400-129906-10	FB-02	Water	11/09/16 09:12	11/09/16 15:51

Client Sample ID: MW-200
Date Collected: 11/09/16 11:27
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-1
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	0.746		0.257	0.265	1.00	0.239	pCi/L	11/14/16 11:56	12/11/16 20:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.8*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.71		0.707	0.938	1.00	0.544	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.8*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	7.46		0.752	0.975	5.00	0.544	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-201

Date Collected: 11/08/16 13:59
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-2

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	9.04		0.794	1.14	1.00	0.302	pCi/L	11/14/16 11:56	12/11/16 16:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/14/16 11:56*	*12/11/16 16:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	15.6		1.01	1.76	1.00	0.563	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*78.5*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	24.6		1.29	2.09	5.00	0.563	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-202

Date Collected: 11/08/16 12:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-3

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	-0.00297	U	0.104	0.104	1.00	0.216	pCi/L	11/14/16 11:56	12/11/16 20:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.677**		0.413	0.417	1.00	0.641	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*79.6*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	**0.674**		0.425	0.430	5.00	0.641	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-203

Date Collected: 11/08/16 10:14
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-4

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	1.91		0.383	0.420	1.00	0.285	pCi/L	11/14/16 11:56	12/11/16 20:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.72		0.654	0.785	1.00	0.624	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*79.3*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	6.63		0.758	0.890	5.00	0.624	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-204

Date Collected: 11/08/16 13:32
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-5

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	6.61		0.694	0.914	1.00	0.313	pCi/L	11/14/16 11:56	12/11/16 20:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*66.4*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	16.0		1.10	1.84	1.00	0.592	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*66.4*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*81.9*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	22.6		1.30	2.05	5.00	0.592	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-205

Date Collected: 11/08/16 14:39
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-6

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	0.0640	U	0.122	0.122	1.00	0.219	pCi/L	11/14/16 11:56	12/11/16 20:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.453**		0.291	0.294	1.00	0.445	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	**0.517**		0.316	0.319	5.00	0.445	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-206

Date Collected: 11/09/16 09:04
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-7

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	16.2	G	2.89	3.24	1.00	1.72	pCi/L	11/15/16 11:25	12/14/16 22:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*11/15/16 11:25*	*12/14/16 22:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	24.3	G	2.42	3.30	1.00	1.70	pCi/L	11/15/16 12:02	12/14/16 17:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*11/15/16 12:02*	*12/14/16 17:10*	*1*
Y Carrier	*86.0*		*40 - 110*	*11/15/16 12:02*	*12/14/16 17:10*	*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	40.5		3.77	4.62	5.00	1.72	pCi/L		12/16/16 18:48	1

Client Sample ID: DUP-02

Date Collected: 11/08/16 11:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-8

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	0.0343	U	0.123	0.123	1.00	0.235	pCi/L	11/14/16 11:56	12/11/16 20:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.435	U	0.314	0.317	1.00	0.489	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*80.4*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	0.470	U	0.337	0.340	5.00	0.489	pCi/L		12/16/16 18:48	1

Client Sample ID: EB-02

Date Collected: 11/09/16 10:23
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-9

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	-0.0277	U	0.113	0.113	1.00	0.244	pCi/L	11/14/16 11:56	12/11/16 20:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.100	U	0.265	0.265	1.00	0.458	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*89.0*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	0.0726	U	0.288	0.288	5.00	0.458	pCi/L		12/16/16 18:48	1

Client Sample ID: FB-02

Date Collected: 11/09/16 09:12
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-10

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	0.307		0.163	0.166	1.00	0.192	pCi/L	11/14/16 11:56	12/11/16 20:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*11/14/16 11:56*	*12/11/16 20:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0788	U	0.270	0.270	1.00	0.471	pCi/L	11/14/16 12:23	12/09/16 15:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*1*
Y Carrier	*85.6*		*40 - 110*	*11/14/16 12:23*	*12/09/16 15:44*	*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	0.386	U	0.315	0.317	5.00	0.471	pCi/L		12/16/16 18:48	1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
G	The Sample MDC is greater than the requested RL.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 11/09/16 11:27
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283420	12/11/16 20:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-201
Date Collected: 11/08/16 13:59
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283420	12/11/16 16:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-202
Date Collected: 11/08/16 12:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-203
Date Collected: 11/08/16 10:14
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

Client Sample ID: MW-204
Date Collected: 11/08/16 13:32
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-205
Date Collected: 11/08/16 14:39
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-206
Date Collected: 11/09/16 09:04
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279376	11/15/16 11:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:28	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279386	11/15/16 12:02	AS	TAL SL
Total/NA	Analysis	9320		1	283970	12/14/16 17:10	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: DUP-02
Date Collected: 11/08/16 11:28
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

Client Sample ID: EB-02

Date Collected: 11/09/16 10:23
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: FB-02

Date Collected: 11/09/16 09:12
Date Received: 11/09/16 15:51

Lab Sample ID: 400-129906-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279118	11/14/16 11:56	AS	TAL SL
Total/NA	Analysis	9315		1	283421	12/11/16 20:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			279122	11/14/16 12:23	AS	TAL SL
Total/NA	Analysis	9320		1	283244	12/09/16 15:44	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 279118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	PrecSep-21	
400-129906-2	MW-201	Total/NA	Water	PrecSep-21	
400-129906-3	MW-202	Total/NA	Water	PrecSep-21	
400-129906-4	MW-203	Total/NA	Water	PrecSep-21	
400-129906-5	MW-204	Total/NA	Water	PrecSep-21	
400-129906-6	MW-205	Total/NA	Water	PrecSep-21	
400-129906-8	DUP-02	Total/NA	Water	PrecSep-21	
400-129906-9	EB-02	Total/NA	Water	PrecSep-21	
400-129906-10	FB-02	Total/NA	Water	PrecSep-21	
MB 160-279118/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-279118/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-279118/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 279122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-1	MW-200	Total/NA	Water	PrecSep_0	
400-129906-2	MW-201	Total/NA	Water	PrecSep_0	
400-129906-3	MW-202	Total/NA	Water	PrecSep_0	
400-129906-4	MW-203	Total/NA	Water	PrecSep_0	
400-129906-5	MW-204	Total/NA	Water	PrecSep_0	
400-129906-6	MW-205	Total/NA	Water	PrecSep_0	
400-129906-8	DUP-02	Total/NA	Water	PrecSep_0	
400-129906-9	EB-02	Total/NA	Water	PrecSep_0	
400-129906-10	FB-02	Total/NA	Water	PrecSep_0	
MB 160-279122/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-279122/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-279122/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 279376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-7	MW-206	Total/NA	Water	PrecSep-21	
MB 160-279376/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-279376/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-129905-B-13-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 279386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129906-7	MW-206	Total/NA	Water	PrecSep_0	
MB 160-279386/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-279386/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-129905-B-13-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-279118/1-A
Matrix: Water
Analysis Batch: 283421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279118

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1402	U	0.128	0.129	1.00	0.193	pCi/L	11/14/16 11:56	12/11/16 16:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*11/14/16 11:56*	*12/11/16 16:04*	*1*

Lab Sample ID: LCS 160-279118/2-A
Matrix: Water
Analysis Batch: 283421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279118

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	14.73		1.66	1.00	0.243	pCi/L	133	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*71.8*		*40 - 110*

Lab Sample ID: LCSD 160-279118/3-A
Matrix: Water
Analysis Batch: 283421

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 279118

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	13.54		1.53	1.00	0.239	pCi/L	122	68 - 137	0.37	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*78.6*		*40 - 110*

Lab Sample ID: MB 160-279376/1-A
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279376

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06439	U	0.230	0.230	1.00	0.441	pCi/L	11/15/16 11:25	12/14/16 21:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.5*		*40 - 110*	*11/15/16 11:25*	*12/14/16 21:01*	*1*

Lab Sample ID: LCS 160-279376/2-A
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279376

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	14.21		1.84	1.00	0.432	pCi/L	128	68 - 137		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-279376/2-A
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279376

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	76.9		40 - 110

Lab Sample ID: 400-129905-B-13-A DU
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 279376

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.266	U		0.1177	U	0.253	1.00	0.465	pCi/L			0.26	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.3		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-279122/1-A
Matrix: Water
Analysis Batch: 283244

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279122

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01815	U	0.272	0.272	1.00	0.484	pCi/L	11/14/16 12:23	12/09/16 15:42	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110	11/14/16 12:23	12/09/16 15:42	1
Y Carrier	81.9		40 - 110	11/14/16 12:23	12/09/16 15:42	1

Lab Sample ID: LCS 160-279122/2-A
Matrix: Water
Analysis Batch: 283244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279122

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.2	16.98		1.89	1.00	0.543	pCi/L	120	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	71.8		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: LCSD 160-279122/3-A
Matrix: Water
Analysis Batch: 283244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 279122

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.2	18.18		1.99	1.00	0.461	pCi/L	128	56 - 140	0.31	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-279122/3-A
Matrix: Water
Analysis Batch: 283244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 279122

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*76.9*		*40 - 110*
Y Carrier	*78.1*		*40 - 110*

Lab Sample ID: MB 160-279386/1-A
Matrix: Water
Analysis Batch: 283970

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279386

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08631	U	0.289	0.289	1.00	0.503	pCi/L	11/15/16 12:02	12/14/16 17:07	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.5*		*40 - 110*	*11/15/16 12:02*	*12/14/16 17:07*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/15/16 12:02*	*12/14/16 17:07*	*1*

Lab Sample ID: LCS 160-279386/2-A
Matrix: Water
Analysis Batch: 283970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279386

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.1	18.04		1.95	1.00	0.468	pCi/L	128	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*76.9*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

Lab Sample ID: 400-129905-B-13-B DU
Matrix: Water
Analysis Batch: 283970

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 279386

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.458			0.4115	U	0.392	1.00	0.632	pCi/L			0.07	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*84.3*		*40 - 110*
Y Carrier	*86.0*		*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 Surles	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: 1 - 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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	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 - 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-200	11/9/16	1127	G	Water			Y	X	X	X		
MW-201	11/8/16	1359	G	Water			Y	Y	X	X		
MW-202	11/8/16	1228	G	Water			X	X	X	X		
MW-203	11/8/16	1014	G	Water			X	X	X	X		
MW-204	11/8/16	1332	G	Water			X	X	X	X		
MW-205	11/8/16	1439	G	Water			X	X	X	X		
MW-206	11/9/16	0904	G	Water			X	X	X	X		
Dup-02	11/8/16	1128	G	water			X	X	X	X		
EB-02	11/9/16	1023	G	water			X	X	X	X		
FB-02	11/9/16	0912	G	water			X	X	X	X		

400-129906 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]	11/9/16 1551	DH			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				[signature]		
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/09/16 1551	Company TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.7°C, 4.1°C IR 5

12/21/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129906-2
SDG Number: Gypsum Storage Area

Login Number: 129906
List Number: 1
Creator: Hughes, Nicholas T

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	3.7°C, 4.1°C IR-5
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129906-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-129952-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
12/14/2016 6:24:04 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 22
Chronicle 23
QC Association 28
QC Sample Results 33
Chain of Custody 42
Receipt Checklists 44
Certification Summary 45

Job ID: 400-129952-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129952-1

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 330900 and analytical batch 331378 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-104 (400-129952-4), MW-105 (400-129952-5), MW-110 (400-129952-8) and DUP-03 (400-129952-9). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 333388 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-129952-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0092		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.44		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.89				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-129952-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00050	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.0099		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.73		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.72				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-129952-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00051	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.061		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	3.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0028		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.43		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	39		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.99				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-129952-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0071		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0012	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	52		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0023	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.022		0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-129952-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0023		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.035		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.012		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00030	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	9.6		2.0	0.84	mg/L	200		6020	Total Recoverable
Mercury	0.0015		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1300		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	180		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.29		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	700		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.05				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-129952-5

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	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	61		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0025		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0037	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.00038	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - DL	1.6		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	330		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	38		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	52		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	6.01				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-129952-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.62		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00055	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.39				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-129952-7

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-109 (Continued) — Lab Sample ID: 400-129952-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	2.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0040		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0055		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Boron - RA	0.073		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	13		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.72				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-129952-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00047	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	8.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0043		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0045	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0038		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00020	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	2.1		0.25	0.11	mg/L	25		6020	Total Recoverable
Mercury	0.00014	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	35		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	130		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.19				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-129952-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0037		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	61		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0024	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0033	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Boron - DL	1.7		0.25	0.11	mg/L	25		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-03 (Continued) — Lab Sample ID: 400-129952-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	340		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	39		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	52		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-03 — Lab Sample ID: 400-129952-10

No Detections.

Client Sample ID: EB-03 — Lab Sample ID: 400-129952-11

No Detections.

Client Sample ID: DUP-04 — Lab Sample ID: 400-129952-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0094		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.42		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 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

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 Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129952-1	MW-101	Water	11/10/16 07:14	11/10/16 12:45
400-129952-2	MW-102	Water	11/10/16 05:41	11/10/16 12:45
400-129952-3	MW-103	Water	11/10/16 08:43	11/10/16 12:45
400-129952-4	MW-104	Water	11/09/16 15:10	11/10/16 12:45
400-129952-5	MW-105	Water	11/09/16 13:23	11/10/16 12:45
400-129952-6	MW-106	Water	11/09/16 12:24	11/10/16 12:45
400-129952-7	MW-109	Water	11/10/16 10:20	11/10/16 12:45
400-129952-8	MW-110	Water	11/10/16 11:09	11/10/16 12:45
400-129952-9	DUP-03	Water	11/09/16 12:23	11/10/16 12:45
400-129952-10	FB-03	Water	11/10/16 08:15	11/10/16 12:45
400-129952-11	EB-03	Water	11/10/16 11:20	11/10/16 12:45
400-129952-12	DUP-04	Water	11/10/16 06:14	11/10/16 12:45

Client Sample ID: MW-101

Date Collected: 11/10/16 07:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-1

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		11/14/16 08:55	11/17/16 20:12	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/17/16 20:12	5
Barium	**0.0092**		0.0025	0.00049	mg/L		11/14/16 08:55	11/17/16 20:12	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 20:12	5
Boron	0.021	U	0.050	0.021	mg/L		11/14/16 08:55	11/17/16 20:12	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/17/16 20:12	5
Calcium	**0.44**		0.25	0.13	mg/L		11/14/16 08:55	11/17/16 20:12	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/17/16 20:12	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 08:55	11/17/16 20:12	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/17/16 20:12	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/17/16 20:12	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/17/16 20:12	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/17/16 20:12	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/17/16 20:12	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		11/29/16 09:18	12/01/16 12:40	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**16**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**4.5**		2.0	0.60	mg/L			12/01/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:23	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/01/16 11:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.89**				SU			11/10/16 07:14	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-102

Date Collected: 11/10/16 05:41
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-2

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		11/14/16 12:00	11/17/16 17:38	5
Arsenic	**0.00050**	**I**	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 17:38	5
Barium	**0.0099**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 17:38	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 17:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 17:38	5
Calcium	**0.73**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 17:38	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 17:38	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 17:38	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 17:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 17:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 17:38	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 17:38	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 17:38	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		11/14/16 12:00	11/18/16 17:36	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		11/29/16 09:25	12/01/16 12:55	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**4.7**		2.0	0.60	mg/L			12/01/16 11:39	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:26	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/01/16 11:34	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.72**				SU			11/10/16 05:41	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-103

Date Collected: 11/10/16 08:43
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-3

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		11/14/16 12:00	11/17/16 17:47	5
Arsenic	**0.00051**	**I**	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 17:47	5
Barium	**0.061**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 17:47	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 17:47	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 17:47	5
Calcium	**3.5**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 17:47	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 17:47	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 17:47	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 17:47	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 17:47	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 17:47	5
Selenium	**0.0028**		0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 17:47	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 17:47	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.43**		0.050	0.021	mg/L		11/14/16 12:00	11/18/16 17:40	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		11/29/16 09:25	12/01/16 12:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**80**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**8.4**		2.0	0.60	mg/L			12/01/16 12:08	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:33	1
Sulfate	**39**		5.0	1.4	mg/L			12/01/16 12:02	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.99**				SU			11/10/16 08:43	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-104
Date Collected: 11/09/16 15:10
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-4
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		11/14/16 12:00	11/17/16 17:57	5
Arsenic	**0.0071**		0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 17:57	5
Barium	**0.022**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 17:57	5
Beryllium	**0.0012**	**I**	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 17:57	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 17:57	5
Calcium	**52**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 17:57	5
Chromium	**0.0023**	**I**	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 17:57	5
Cobalt	**0.022**		0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 17:57	5
Lead	**0.0023**		0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 17:57	5
Lithium	**0.035**		0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 17:57	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 17:57	5
Selenium	**0.012**		0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 17:57	5
Thallium	**0.00030**	**I**	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 17:57	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**9.6**		2.0	0.84	mg/L		11/14/16 12:00	11/18/16 17:45	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0015**		0.00020	0.000070	mg/L		11/29/16 09:25	12/01/16 12:57	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**180**		10	3.0	mg/L			12/01/16 14:45	5
Fluoride	**0.29**		0.10	0.032	mg/L			12/06/16 19:27	1
Sulfate	**700**		100	28	mg/L			12/01/16 13:54	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.05**				SU			11/09/16 15:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-105

Date Collected: 11/09/16 13:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-5

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		11/14/16 12:00	11/17/16 18:06	5
Arsenic	**0.0038**		0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 18:06	5
Barium	**0.046**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 18:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:06	5
Calcium	**61**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 18:06	5
Chromium	**0.0025**		0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 18:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 18:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 18:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 18:06	5
Molybdenum	**0.0037**	**I**	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 18:06	5
Selenium	**0.00038**	**I**	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 18:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 18:06	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.25	0.11	mg/L		11/14/16 12:00	11/18/16 17:49	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		11/29/16 09:25	12/01/16 12:58	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**330**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**38**		2.0	0.60	mg/L			12/01/16 11:24	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/16 19:29	1
Sulfate	**52**		10	2.8	mg/L			12/01/16 13:54	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.01**				SU			11/09/16 13:23	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-106
Date Collected: 11/09/16 12:24
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-6
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		11/14/16 12:00	11/17/16 18:32	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 18:32	5
Barium	**0.010**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 18:32	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:32	5
Calcium	**0.62**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 18:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 18:32	5
Cobalt	**0.00055**	**I**	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 18:32	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 18:32	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 18:32	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 18:32	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 18:32	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 18:32	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		11/14/16 12:00	11/18/16 17:54	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		11/29/16 09:25	12/01/16 13:00	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**3.9**		2.0	0.60	mg/L			12/01/16 11:24	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 15:39	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/01/16 11:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.39**				SU			11/09/16 12:24	1

Client Sample ID: MW-109

Date Collected: 11/10/16 10:20
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-7

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		11/14/16 12:00	11/17/16 18:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 18:37	5
Barium	**0.019**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 18:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:37	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:37	5
Calcium	**2.7**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 18:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 18:37	5
Cobalt	**0.0040**		0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 18:37	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 18:37	5
Lithium	**0.0055**		0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 18:37	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 18:37	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 18:37	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 18:37	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.073**		0.050	0.021	mg/L		11/14/16 12:00	11/18/16 17:58	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		11/29/16 09:25	12/01/16 13:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			11/12/16 12:54	1
Chloride	**4.2**		2.0	0.60	mg/L			12/01/16 12:08	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:38	1
Sulfate	**13**		5.0	1.4	mg/L			12/06/16 16:03	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.72**				SU			11/10/16 10:20	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: MW-110

Date Collected: 11/10/16 11:09
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-8

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		11/14/16 12:00	11/17/16 18:46	5
Arsenic	**0.00047**	**I**	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 18:46	5
Barium	**0.046**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 18:46	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:46	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:46	5
Calcium	**8.7**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 18:46	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 18:46	5
Cobalt	**0.0043**		0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 18:46	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 18:46	5
Lithium	**0.0045**	**I**	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 18:46	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 18:46	5
Selenium	**0.0038**		0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 18:46	5
Thallium	**0.00020**	**I**	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 18:46	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.1**		0.25	0.11	mg/L		11/14/16 12:00	11/18/16 18:03	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00014**	**I**	0.00020	0.000070	mg/L		11/29/16 09:25	12/01/16 13:02	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**260**		5.0	3.4	mg/L			11/12/16 12:54	1
Chloride	**35**		2.0	0.60	mg/L			12/01/16 12:08	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:40	1
Sulfate	**130**		25	7.0	mg/L			12/06/16 17:01	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.19**				SU			11/10/16 11:09	1

Client Sample ID: DUP-03

Date Collected: 11/09/16 12:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-9

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		11/14/16 12:00	11/17/16 18:55	5
Arsenic	**0.0037**		0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 18:55	5
Barium	**0.046**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 18:55	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:55	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 18:55	5
Calcium	**61**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 18:55	5
Chromium	**0.0024**	**I**	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 18:55	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 18:55	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 18:55	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 18:55	5
Molybdenum	**0.0033**	**I**	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 18:55	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 18:55	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 18:55	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.7**		0.25	0.11	mg/L		11/14/16 12:00	11/18/16 18:07	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		11/29/16 09:25	12/01/16 13:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**340**		5.0	3.4	mg/L			11/12/16 16:50	1
Chloride	**39**		2.0	0.60	mg/L			12/01/16 11:24	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 15:50	1
Sulfate	**52**		10	2.8	mg/L			12/01/16 13:54	2

Client Sample ID: FB-03

Date Collected: 11/10/16 08:15
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-10

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		11/14/16 12:00	11/17/16 19:00	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 19:00	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 19:00	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 19:00	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 19:00	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 12:00	11/17/16 19:00	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 19:00	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 19:00	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 19:00	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 19:00	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 19:00	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 19:00	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 19:00	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		11/14/16 12:00	11/18/16 18:34	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		11/29/16 09:25	12/01/16 13:05	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			11/12/16 12:54	1
Chloride	0.60	U	2.0	0.60	mg/L			12/01/16 12:08	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:43	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/06/16 16:03	1

Client Sample ID: EB-03

Date Collected: 11/10/16 11:20
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-11

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		11/14/16 12:00	11/17/16 19:04	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 19:04	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 19:04	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 19:04	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 19:04	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 12:00	11/17/16 19:04	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 19:04	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 19:04	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 19:04	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 19:04	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 19:04	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 19:04	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 19:04	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		11/14/16 12:00	11/18/16 18:38	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		11/29/16 09:25	12/01/16 13:06	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			11/12/16 12:54	1
Chloride	0.60	U	2.0	0.60	mg/L			12/01/16 12:08	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:46	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/06/16 16:03	1

Client Sample ID: DUP-04

Date Collected: 11/10/16 06:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-12

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		11/14/16 12:00	11/17/16 19:13	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 12:00	11/17/16 19:13	5
Barium	**0.0094**		0.0025	0.00049	mg/L		11/14/16 12:00	11/17/16 19:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 19:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/17/16 19:13	5
Calcium	**0.42**		0.25	0.13	mg/L		11/14/16 12:00	11/17/16 19:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/17/16 19:13	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/17/16 19:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/17/16 19:13	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/17/16 19:13	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/17/16 19:13	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/17/16 19:13	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/17/16 19:13	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		11/14/16 12:00	11/18/16 18:43	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		11/29/16 09:25	12/01/16 13:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10**		5.0	3.4	mg/L			11/12/16 12:54	1
Chloride	**4.3**		2.0	0.60	mg/L			12/01/16 12:08	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 16:49	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/06/16 16:03	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
U	Indicates that the compound was analyzed for but not detected.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-101

Date Collected: 11/10/16 07:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330900	11/14/16 08:55	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 20:12	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:18	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 12:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:39	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 11:34	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/10/16 07:14	BWS	TAL PEN

Client Sample ID: MW-102

Date Collected: 11/10/16 05:41
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 17:38	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 17:36	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 12:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:39	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 11:34	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/10/16 05:41	BWS	TAL PEN

Client Sample ID: MW-103

Date Collected: 11/10/16 08:43
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 17:47	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 17:40	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 12:08	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 12:02	SEH	TAL PEN

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	334832	11/10/16 08:43	BWS	TAL PEN

Client Sample ID: MW-104
Date Collected: 11/09/16 15:10
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 17:57	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	331889	11/18/16 17:45	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 12:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	333384	12/01/16 14:45	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 19:27	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	333388	12/01/16 13:54	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/09/16 15:10	BWS	TAL PEN

Client Sample ID: MW-105
Date Collected: 11/09/16 13:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 18:06	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331889	11/18/16 17:49	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 12:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:24	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	333983	12/06/16 19:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	333388	12/01/16 13:54	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/09/16 13:23	BWS	TAL PEN

Client Sample ID: MW-106
Date Collected: 11/09/16 12:24
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 18:32	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 17:54	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN

Client Sample ID: MW-106

Lab Sample ID: 400-129952-6

Date Collected: 11/09/16 12:24

Matrix: Water

Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	333380	12/01/16 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:24	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 15:39	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	333388	12/01/16 11:31	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/09/16 12:24	BWS	TAL PEN

Client Sample ID: MW-109

Lab Sample ID: 400-129952-7

Date Collected: 11/10/16 10:20

Matrix: Water

Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 18:37	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 17:58	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 13:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330821	11/12/16 12:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 12:08	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	334025	12/06/16 16:03	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/10/16 10:20	BWS	TAL PEN

Client Sample ID: MW-110

Lab Sample ID: 400-129952-8

Date Collected: 11/10/16 11:09

Matrix: Water

Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 18:46	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331889	11/18/16 18:03	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 13:02	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330821	11/12/16 12:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 12:08	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	334025	12/06/16 17:01	SEH	TAL PEN
Total/NA	Analysis	Field Sampling		1	334832	11/10/16 11:09	BWS	TAL PEN

Client Sample ID: DUP-03

Date Collected: 11/09/16 12:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 18:55	AJR	TAL PEN
Total Recoverable	Prep	3005A	DL		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	331889	11/18/16 18:07	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 13:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330817	11/12/16 16:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 11:24	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 15:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	333388	12/01/16 13:54	SEH	TAL PEN

Client Sample ID: FB-03

Date Collected: 11/10/16 08:15
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 19:00	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 18:34	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 13:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330821	11/12/16 12:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 12:08	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:43	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	334025	12/06/16 16:03	SEH	TAL PEN

Client Sample ID: EB-03

Date Collected: 11/10/16 11:20
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 19:04	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 18:38	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 13:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330821	11/12/16 12:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 12:08	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	334025	12/06/16 16:03	SEH	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Client Sample ID: DUP-04

Date Collected: 11/10/16 06:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	331606	11/17/16 19:13	AJR	TAL PEN
Total Recoverable	Prep	3005A	RA		330917	11/14/16 12:00	RJB	TAL PEN
Total Recoverable	Analysis	6020	RA	5	331889	11/18/16 18:43	AJR	TAL PEN
Total/NA	Prep	7470A			332896	11/29/16 09:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	333380	12/01/16 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	330821	11/12/16 12:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	333384	12/01/16 12:08	SEH	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	334164	12/07/16 16:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	334025	12/06/16 16:03	SEH	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 330900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total Recoverable	Water	3005A	
MB 400-330900/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-330900/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-129942-B-4-B MS ^25	Matrix Spike	Total Recoverable	Water	3005A	
400-129942-B-4-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 330917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-2	MW-102	Total Recoverable	Water	3005A	
400-129952-2 - RA	MW-102	Total Recoverable	Water	3005A	
400-129952-3 - RA	MW-103	Total Recoverable	Water	3005A	
400-129952-3	MW-103	Total Recoverable	Water	3005A	
400-129952-4	MW-104	Total Recoverable	Water	3005A	
400-129952-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-129952-5 - DL	MW-105	Total Recoverable	Water	3005A	
400-129952-5	MW-105	Total Recoverable	Water	3005A	
400-129952-6	MW-106	Total Recoverable	Water	3005A	
400-129952-6 - RA	MW-106	Total Recoverable	Water	3005A	
400-129952-7	MW-109	Total Recoverable	Water	3005A	
400-129952-7 - RA	MW-109	Total Recoverable	Water	3005A	
400-129952-8	MW-110	Total Recoverable	Water	3005A	
400-129952-8 - DL	MW-110	Total Recoverable	Water	3005A	
400-129952-9 - DL	DUP-03	Total Recoverable	Water	3005A	
400-129952-9	DUP-03	Total Recoverable	Water	3005A	
400-129952-10	FB-03	Total Recoverable	Water	3005A	
400-129952-10 - RA	FB-03	Total Recoverable	Water	3005A	
400-129952-11 - RA	EB-03	Total Recoverable	Water	3005A	
400-129952-11	EB-03	Total Recoverable	Water	3005A	
400-129952-12	DUP-04	Total Recoverable	Water	3005A	
400-129952-12 - RA	DUP-04	Total Recoverable	Water	3005A	
MB 400-330917/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-330917/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-129942-A-4-B MS ^25	Matrix Spike	Dissolved	Water	3005A	
400-129942-A-4-C MSD ^25	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 331378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-330900/1-A ^5	Method Blank	Total Recoverable	Water	6020	330900
MB 400-330917/1-A ^5	Method Blank	Total Recoverable	Water	6020	330917
LCS 400-330900/2-A	Lab Control Sample	Total Recoverable	Water	6020	330900
LCS 400-330917/2-A	Lab Control Sample	Total Recoverable	Water	6020	330917
400-129942-B-4-B MS ^25	Matrix Spike	Total Recoverable	Water	6020	330900
400-129942-B-4-C MSD ^25	Matrix Spike Duplicate	Total Recoverable	Water	6020	330900

Analysis Batch: 331606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total Recoverable	Water	6020	330900
400-129952-2	MW-102	Total Recoverable	Water	6020	330917
400-129952-3	MW-103	Total Recoverable	Water	6020	330917
400-129952-4	MW-104	Total Recoverable	Water	6020	330917
400-129952-5	MW-105	Total Recoverable	Water	6020	330917

Metals (Continued)

Analysis Batch: 331606 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-6	MW-106	Total Recoverable	Water	6020	330917
400-129952-7	MW-109	Total Recoverable	Water	6020	330917
400-129952-8	MW-110	Total Recoverable	Water	6020	330917
400-129952-9	DUP-03	Total Recoverable	Water	6020	330917
400-129952-10	FB-03	Total Recoverable	Water	6020	330917
400-129952-11	EB-03	Total Recoverable	Water	6020	330917
400-129952-12	DUP-04	Total Recoverable	Water	6020	330917
400-129942-A-4-B MS ^25	Matrix Spike	Dissolved	Water	6020	330917
400-129942-A-4-C MSD ^25	Matrix Spike Duplicate	Dissolved	Water	6020	330917

Analysis Batch: 331889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-2 - RA	MW-102	Total Recoverable	Water	6020	330917
400-129952-3 - RA	MW-103	Total Recoverable	Water	6020	330917
400-129952-4 - DL	MW-104	Total Recoverable	Water	6020	330917
400-129952-5 - DL	MW-105	Total Recoverable	Water	6020	330917
400-129952-6 - RA	MW-106	Total Recoverable	Water	6020	330917
400-129952-7 - RA	MW-109	Total Recoverable	Water	6020	330917
400-129952-8 - DL	MW-110	Total Recoverable	Water	6020	330917
400-129952-9 - DL	DUP-03	Total Recoverable	Water	6020	330917
400-129952-10 - RA	FB-03	Total Recoverable	Water	6020	330917
400-129952-11 - RA	EB-03	Total Recoverable	Water	6020	330917
400-129952-12 - RA	DUP-04	Total Recoverable	Water	6020	330917

Prep Batch: 332896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	7470A	
400-129952-2	MW-102	Total/NA	Water	7470A	
400-129952-3	MW-103	Total/NA	Water	7470A	
400-129952-4	MW-104	Total/NA	Water	7470A	
400-129952-5	MW-105	Total/NA	Water	7470A	
400-129952-6	MW-106	Total/NA	Water	7470A	
400-129952-7	MW-109	Total/NA	Water	7470A	
400-129952-8	MW-110	Total/NA	Water	7470A	
400-129952-9	DUP-03	Total/NA	Water	7470A	
400-129952-10	FB-03	Total/NA	Water	7470A	
400-129952-11	EB-03	Total/NA	Water	7470A	
400-129952-12	DUP-04	Total/NA	Water	7470A	
MB 400-332896/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-332896/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-129952-1 MS	MW-101	Total/NA	Water	7470A	
400-129952-1 MSD	MW-101	Total/NA	Water	7470A	

Analysis Batch: 333380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	7470A	332896
400-129952-2	MW-102	Total/NA	Water	7470A	332896
400-129952-3	MW-103	Total/NA	Water	7470A	332896
400-129952-4	MW-104	Total/NA	Water	7470A	332896
400-129952-5	MW-105	Total/NA	Water	7470A	332896
400-129952-6	MW-106	Total/NA	Water	7470A	332896

Metals (Continued)

Analysis Batch: 333380 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-7	MW-109	Total/NA	Water	7470A	332896
400-129952-8	MW-110	Total/NA	Water	7470A	332896
400-129952-9	DUP-03	Total/NA	Water	7470A	332896
400-129952-10	FB-03	Total/NA	Water	7470A	332896
400-129952-11	EB-03	Total/NA	Water	7470A	332896
400-129952-12	DUP-04	Total/NA	Water	7470A	332896
MB 400-332896/14-A	Method Blank	Total/NA	Water	7470A	332896
LCS 400-332896/15-A	Lab Control Sample	Total/NA	Water	7470A	332896
400-129952-1 MS	MW-101	Total/NA	Water	7470A	332896
400-129952-1 MSD	MW-101	Total/NA	Water	7470A	332896

General Chemistry

Analysis Batch: 330817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	SM 2540C	
400-129952-2	MW-102	Total/NA	Water	SM 2540C	
400-129952-3	MW-103	Total/NA	Water	SM 2540C	
400-129952-4	MW-104	Total/NA	Water	SM 2540C	
400-129952-5	MW-105	Total/NA	Water	SM 2540C	
400-129952-6	MW-106	Total/NA	Water	SM 2540C	
400-129952-9	DUP-03	Total/NA	Water	SM 2540C	
MB 400-330817/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-330817/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129931-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	
400-129966-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 330821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-7	MW-109	Total/NA	Water	SM 2540C	
400-129952-8	MW-110	Total/NA	Water	SM 2540C	
400-129952-10	FB-03	Total/NA	Water	SM 2540C	
400-129952-11	EB-03	Total/NA	Water	SM 2540C	
400-129952-12	DUP-04	Total/NA	Water	SM 2540C	
MB 400-330821/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-330821/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-129952-7 DU	MW-109	Total/NA	Water	SM 2540C	
400-129952-8 DU	MW-110	Total/NA	Water	SM 2540C	

Analysis Batch: 333384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-129952-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-129952-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-129952-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-129952-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-129952-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-129952-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-129952-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-129952-9	DUP-03	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 333384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-10	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-129952-11	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-129952-12	DUP-04	Total/NA	Water	SM 4500 Cl- E	
MB 400-333384/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-333384/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-333384/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-129952-6 MS	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-129952-6 MSD	MW-106	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 333388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-129952-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-129952-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-129952-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-129952-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-129952-6	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-129952-9	DUP-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-333388/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-333388/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-333388/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-129952-6 MS	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-129952-6 MSD	MW-106	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 333983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-4	MW-104	Total/NA	Water	SM 4500 F C	
400-129952-5	MW-105	Total/NA	Water	SM 4500 F C	
MB 400-333983/14	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-333983/13	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129822-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-129822-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-129822-B-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 334025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-129952-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-129952-10	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-129952-11	EB-03	Total/NA	Water	SM 4500 SO4 E	
400-129952-12	DUP-04	Total/NA	Water	SM 4500 SO4 E	
MB 400-334025/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-334025/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-334025/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-130141-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-130141-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 334164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	SM 4500 F C	
400-129952-2	MW-102	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 334164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-3	MW-103	Total/NA	Water	SM 4500 F C	
400-129952-6	MW-106	Total/NA	Water	SM 4500 F C	
400-129952-7	MW-109	Total/NA	Water	SM 4500 F C	
400-129952-8	MW-110	Total/NA	Water	SM 4500 F C	
400-129952-9	DUP-03	Total/NA	Water	SM 4500 F C	
400-129952-10	FB-03	Total/NA	Water	SM 4500 F C	
400-129952-11	EB-03	Total/NA	Water	SM 4500 F C	
400-129952-12	DUP-04	Total/NA	Water	SM 4500 F C	
MB 400-334164/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-334164/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-129952-6 MS	MW-106	Total/NA	Water	SM 4500 F C	
400-129952-6 MSD	MW-106	Total/NA	Water	SM 4500 F C	
400-129952-3 DU	MW-103	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 334832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	Field Sampling	
400-129952-2	MW-102	Total/NA	Water	Field Sampling	
400-129952-3	MW-103	Total/NA	Water	Field Sampling	
400-129952-4	MW-104	Total/NA	Water	Field Sampling	
400-129952-5	MW-105	Total/NA	Water	Field Sampling	
400-129952-6	MW-106	Total/NA	Water	Field Sampling	
400-129952-7	MW-109	Total/NA	Water	Field Sampling	
400-129952-8	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-330900/1-A ^5
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		11/14/16 08:55	11/16/16 14:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 08:55	11/16/16 14:39	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 08:55	11/16/16 14:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/16/16 14:39	5
Boron	0.021	U	0.050	0.021	mg/L		11/14/16 08:55	11/16/16 14:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 08:55	11/16/16 14:39	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 08:55	11/16/16 14:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 08:55	11/16/16 14:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 08:55	11/16/16 14:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 08:55	11/16/16 14:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 08:55	11/16/16 14:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 08:55	11/16/16 14:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 08:55	11/16/16 14:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 08:55	11/16/16 14:39	5

Lab Sample ID: LCS 400-330900/2-A
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0496		mg/L		99	80 - 120
Arsenic	0.0500	0.0498		mg/L		100	80 - 120
Barium	0.0500	0.0487		mg/L		97	80 - 120
Beryllium	0.0500	0.0446		mg/L		89	80 - 120
Boron	0.100	0.0897		mg/L		90	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	5.00	4.83		mg/L		97	80 - 120
Chromium	0.0500	0.0479		mg/L		96	80 - 120
Cobalt	0.0500	0.0483		mg/L		97	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Lithium	0.0500	0.0474		mg/L		95	80 - 120
Molybdenum	0.0500	0.0500		mg/L		100	80 - 120
Selenium	0.0500	0.0483		mg/L		97	80 - 120
Thallium	0.0100	0.00986		mg/L		99	80 - 120

Lab Sample ID: 400-129942-B-4-B MS ^25
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0050	U	0.0500	0.0522		mg/L		104	75 - 125
Arsenic	0.31		0.0500	0.360		mg/L		99	75 - 125
Barium	0.056		0.0500	0.103		mg/L		96	75 - 125
Beryllium	0.0017	U	0.0500	0.0462		mg/L		92	75 - 125
Boron	1.6		0.100	1.70		mg/L		86	75 - 125
Cadmium	0.0017	U	0.0500	0.0471		mg/L		94	75 - 125
Calcium	100		5.00	104	J3	mg/L		72	75 - 125
Chromium	0.0055	U	0.0500	0.0465		mg/L		93	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-129942-B-4-B MS ^25
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0042	I	0.0500	0.0517		mg/L		95	75 - 125
Lead	0.0018	U	0.0500	0.0472		mg/L		94	75 - 125
Lithium	0.050		0.0500	0.0980		mg/L		95	75 - 125
Molybdenum	0.017	I	0.0500	0.0656	I	mg/L		98	75 - 125
Selenium	0.0012	U	0.0500	0.0615		mg/L		123	75 - 125
Thallium	0.00043	U	0.0100	0.00963		mg/L		96	75 - 125

Lab Sample ID: 400-129942-B-4-C MSD ^25
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 330900

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0050	U	0.0500	0.0483		mg/L		97	75 - 125	8	20
Arsenic	0.31		0.0500	0.361		mg/L		101	75 - 125	0	20
Barium	0.056		0.0500	0.105		mg/L		99	75 - 125	1	20
Beryllium	0.0017	U	0.0500	0.0467		mg/L		93	75 - 125	1	20
Boron	1.6		0.100	1.74	J3	mg/L		126	75 - 125	2	20
Cadmium	0.0017	U	0.0500	0.0475		mg/L		95	75 - 125	1	20
Calcium	100		5.00	105		mg/L		82	75 - 125	0	20
Chromium	0.0055	U	0.0500	0.0459		mg/L		92	75 - 125	1	20
Cobalt	0.0042	I	0.0500	0.0512		mg/L		94	75 - 125	1	20
Lead	0.0018	U	0.0500	0.0480		mg/L		96	75 - 125	2	20
Lithium	0.050		0.0500	0.0956		mg/L		90	75 - 125	3	20
Molybdenum	0.017	I	0.0500	0.0671	I	mg/L		101	75 - 125	2	20
Selenium	0.0012	U	0.0500	0.0562		mg/L		112	75 - 125	9	20
Thallium	0.00043	U	0.0100	0.00985		mg/L		99	75 - 125	2	20

Lab Sample ID: MB 400-330917/1-A ^5
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 330917

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		11/14/16 12:00	11/16/16 14:48	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		11/14/16 12:00	11/16/16 14:48	5
Barium	0.00049	U	0.0025	0.00049	mg/L		11/14/16 12:00	11/16/16 14:48	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/16/16 14:48	5
Boron	0.021	U	0.050	0.021	mg/L		11/14/16 12:00	11/16/16 14:48	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		11/14/16 12:00	11/16/16 14:48	5
Calcium	0.13	U	0.25	0.13	mg/L		11/14/16 12:00	11/16/16 14:48	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		11/14/16 12:00	11/16/16 14:48	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		11/14/16 12:00	11/16/16 14:48	5
Lead	0.00035	U	0.0013	0.00035	mg/L		11/14/16 12:00	11/16/16 14:48	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		11/14/16 12:00	11/16/16 14:48	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		11/14/16 12:00	11/16/16 14:48	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		11/14/16 12:00	11/16/16 14:48	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		11/14/16 12:00	11/16/16 14:48	5

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-330917/2-A
Matrix: Water
Analysis Batch: 331378

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 330917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0498		mg/L		100	80 - 120
Arsenic	0.0500	0.0499		mg/L		100	80 - 120
Barium	0.0500	0.0492		mg/L		98	80 - 120
Beryllium	0.0500	0.0456		mg/L		91	80 - 120
Boron	0.100	0.0908		mg/L		91	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	5.00	4.82		mg/L		96	80 - 120
Chromium	0.0500	0.0488		mg/L		98	80 - 120
Cobalt	0.0500	0.0490		mg/L		98	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0488		mg/L		98	80 - 120
Molybdenum	0.0500	0.0494		mg/L		99	80 - 120
Selenium	0.0500	0.0493		mg/L		99	80 - 120
Thallium	0.0100	0.00994		mg/L		99	80 - 120

Lab Sample ID: 400-129942-A-4-B MS ^25
Matrix: Water
Analysis Batch: 331606

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 330917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0050	U	0.0500	0.0582		mg/L		116	75 - 125
Arsenic	0.31		0.0500	0.369		mg/L		117	75 - 125
Barium	0.048		0.0500	0.100		mg/L		104	75 - 125
Beryllium	0.0017	U	0.0500	0.0519		mg/L		104	75 - 125
Boron	1.7		0.100	1.74	J3	mg/L		41	75 - 125
Cadmium	0.0017	U	0.0500	0.0510		mg/L		102	75 - 125
Calcium	100		5.00	106		mg/L		112	75 - 125
Chromium	0.0055	U	0.0500	0.0504		mg/L		101	75 - 125
Cobalt	0.0045	I	0.0500	0.0539		mg/L		99	75 - 125
Lead	0.0018	U	0.0500	0.0494		mg/L		99	75 - 125
Lithium	0.056		0.0500	0.104		mg/L		95	75 - 125
Molybdenum	0.018	I	0.0500	0.0703	I	mg/L		104	75 - 125
Selenium	0.0012	U	0.0500	0.0519		mg/L		104	75 - 125
Thallium	0.00043	U	0.0100	0.00978		mg/L		98	75 - 125

Lab Sample ID: 400-129942-A-4-C MSD ^25
Matrix: Water
Analysis Batch: 331606

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 330917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0050	U	0.0500	0.0527		mg/L		105	75 - 125	10	20
Arsenic	0.31		0.0500	0.367		mg/L		111	75 - 125	1	20
Barium	0.048		0.0500	0.103		mg/L		110	75 - 125	3	20
Beryllium	0.0017	U	0.0500	0.0539		mg/L		108	75 - 125	4	20
Boron	1.7		0.100	1.77	J3	mg/L		67	75 - 125	2	20
Cadmium	0.0017	U	0.0500	0.0471		mg/L		94	75 - 125	8	20
Calcium	100		5.00	106		mg/L		113	75 - 125	0	20
Chromium	0.0055	U	0.0500	0.0509		mg/L		102	75 - 125	1	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-129942-A-4-C MSD ^25 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 331606 — **Prep Batch: 330917**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0045	I	0.0500	0.0545		mg/L		100	75 - 125	1	20
Lead	0.0018	U	0.0500	0.0485		mg/L		97	75 - 125	2	20
Lithium	0.056		0.0500	0.104		mg/L		96	75 - 125	0	20
Molybdenum	0.018	I	0.0500	0.0664	I	mg/L		96	75 - 125	6	20
Selenium	0.0012	U	0.0500	0.0480		mg/L		96	75 - 125	8	20
Thallium	0.00043	U	0.0100	0.0100		mg/L		100	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-332896/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333380 — **Prep Batch: 332896**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/29/16 09:18	12/01/16 12:33	1

Lab Sample ID: LCS 400-332896/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333380 — **Prep Batch: 332896**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00100		mg/L		100	80 - 120

Lab Sample ID: 400-129952-1 MS — **Client Sample ID: MW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333380 — **Prep Batch: 332896**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00187		mg/L		93	80 - 120

Lab Sample ID: 400-129952-1 MSD — **Client Sample ID: MW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333380 — **Prep Batch: 332896**

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	0.00189		mg/L		94	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-330817/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 330817

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			11/12/16 16:50	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 400-330817/2
Matrix: Water
Analysis Batch: 330817

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	264		mg/L		90	78 - 122		

Lab Sample ID: 400-129931-B-2 DU
Matrix: Water
Analysis Batch: 330817

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	36			36.0		mg/L				0	5

Lab Sample ID: 400-129966-A-1 DU
Matrix: Water
Analysis Batch: 330817

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	80			80.0		mg/L				0	5

Lab Sample ID: MB 400-330821/1
Matrix: Water
Analysis Batch: 330821

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			11/12/16 12:54	1

Lab Sample ID: LCS 400-330821/2
Matrix: Water
Analysis Batch: 330821

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	248		mg/L		85	78 - 122		

Lab Sample ID: 400-129952-7 DU
Matrix: Water
Analysis Batch: 330821

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	38			38.0		mg/L				0	5

Lab Sample ID: 400-129952-8 DU
Matrix: Water
Analysis Batch: 330821

Client Sample ID: MW-110
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	260			262		mg/L				0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-333384/5
Matrix: Water
Analysis Batch: 333384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			12/01/16 09:39	1

Lab Sample ID: LCS 400-333384/7
Matrix: Water
Analysis Batch: 333384

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	32.7		mg/L		109	90 - 110

Lab Sample ID: MRL 400-333384/3
Matrix: Water
Analysis Batch: 333384

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	1.07	I	mg/L		54	50 - 150

Lab Sample ID: 400-129952-6 MS
Matrix: Water
Analysis Batch: 333384

Client Sample ID: MW-106
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.9		10.0	15.4		mg/L		115	73 - 120

Lab Sample ID: 400-129952-6 MSD
Matrix: Water
Analysis Batch: 333384

Client Sample ID: MW-106
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.9		10.0	15.4		mg/L		115	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-333983/14
Matrix: Water
Analysis Batch: 333983

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			12/06/16 17:44	1

Lab Sample ID: LCS 400-333983/13
Matrix: Water
Analysis Batch: 333983

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	4.11		mg/L		103	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-129822-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	I	1.00	1.00		mg/L		96	75 - 125

Lab Sample ID: 400-129822-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333983

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	0.980		mg/L		94	75 - 125	2	4

Lab Sample ID: 400-129822-B-3 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 333983

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	68		68.2		mg/L		0	4

Lab Sample ID: MB 400-334164/15 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 334164

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			12/07/16 15:20	1

Lab Sample ID: LCS 400-334164/14 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 334164

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.03		mg/L		101	90 - 110

Lab Sample ID: 400-129952-6 MS — **Client Sample ID: MW-106**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 334164

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.032	U	1.00	0.920		mg/L		92	75 - 125

Lab Sample ID: 400-129952-6 MSD — **Client Sample ID: MW-106**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 334164

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	0.920		mg/L		92	75 - 125	0	4

Lab Sample ID: 400-129952-3 DU — **Client Sample ID: MW-103**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 334164

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 400-333388/6
Matrix: Water
Analysis Batch: 333388

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			12/01/16 09:41	1

Lab Sample ID: LCS 400-333388/7
Matrix: Water
Analysis Batch: 333388

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 400-333388/3
Matrix: Water
Analysis Batch: 333388

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	4.31	I	mg/L		86	50 - 150

Lab Sample ID: 400-129952-6 MS
Matrix: Water
Analysis Batch: 333388

Client Sample ID: MW-106
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	U	1000	10.3	J3	mg/L		1	77 - 128

Lab Sample ID: 400-129952-6 MSD
Matrix: Water
Analysis Batch: 333388

Client Sample ID: MW-106
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	1000	10.3	J3	mg/L		1	77 - 128	0	5

Lab Sample ID: MB 400-334025/6
Matrix: Water
Analysis Batch: 334025

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			12/06/16 15:30	1

Lab Sample ID: LCS 400-334025/7
Matrix: Water
Analysis Batch: 334025

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	14.9		mg/L		100	90 - 110

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-334025/3
Matrix: Water
Analysis Batch: 334025

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	4.32	I	mg/L		86	50 - 150		

Lab Sample ID: 400-130141-B-1 MS
Matrix: Water
Analysis Batch: 334025

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	10		10.0	21.2		mg/L		109	77 - 128		

Lab Sample ID: 400-130141-B-1 MSD
Matrix: Water
Analysis Batch: 334025

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	10		10.0	21.4		mg/L		111	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 Swiles	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: 1-2
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	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 - 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-101	11/10/16	0714	G	Water			X	X	X	X		
MW-102	11/10/16	0541	G	Water								
MW-103	11/10/16	0843	G	Water								
MW-104	11/9/16	1510	G	Water								
MW-105	11/9/16	1323	G	Water								
MW-106	11/9/16	1224	G	Water								
MW-109	11/10/16	1020	G	Water								400-129952 COC
MW-110	11/10/16	1109	G	Water								
Dup-03	11/9/16	1223	G	water								
FB-03	11/10/16	0815	G	water								
EB-03	11/10/16	1120	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: 11/10/16 1245	Company: RDH	Received by:	Date/Time: 11/10/16 1245	Company: TA-PCV
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: 0.0°C, 0.0°C, 0.0°C IR5

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 Sides	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: 2-2
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	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 - 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-101~~ Dup-04	11/10/16	0614	G	Water			X	X	X	X		
~~MW-102~~				~~Water~~								
~~MW-103~~				~~Water~~								
~~MW-104~~				~~Water~~								
~~MW-105~~				~~Water~~								
~~MW-106~~				~~Water~~								
~~MW-109~~				~~Water~~								
~~MW-[illegible]~~				~~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
Brett Sides	11/10/16 1245	RDH	[signature]	11/10/16 1245	TA-PEN
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:

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129952-1
SDG Number: Landfill 1

Login Number: 129952
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.0°C, 0.0°C IR-5
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-1
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-129952-2
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
12/21/2016 9:20:25 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 18
Chronicle 19
QC Association 22
QC Sample Results 23
Chain of Custody 25
Receipt Checklists 27
Certification Summary 28

Job ID: 400-129952-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129952-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-279649: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with MW-101 (400-129952-1), MW-102 (400-129952-2), MW-103 (400-129952-3), MW-104 (400-129952-4), MW-105 (400-129952-5), MW-106 (400-129952-6), MW-109 (400-129952-7), MW-110 (400-129952-8), DUP-03 (400-129952-9), FB-03 (400-129952-10), EB-03 (400-129952-11) and DUP-04 (400-129952-12). 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 160-279644: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with MW-101 (400-129952-1), MW-102 (400-129952-2), MW-103 (400-129952-3), MW-104 (400-129952-4), MW-105 (400-129952-5), MW-106 (400-129952-6), MW-109 (400-129952-7), MW-110 (400-129952-8), DUP-03 (400-129952-9), FB-03 (400-129952-10), EB-03 (400-129952-11) and DUP-04 (400-129952-12). 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 Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129952-1	MW-101	Water	11/10/16 07:14	11/10/16 12:45
400-129952-2	MW-102	Water	11/10/16 05:41	11/10/16 12:45
400-129952-3	MW-103	Water	11/10/16 08:43	11/10/16 12:45
400-129952-4	MW-104	Water	11/09/16 15:10	11/10/16 12:45
400-129952-5	MW-105	Water	11/09/16 13:23	11/10/16 12:45
400-129952-6	MW-106	Water	11/09/16 12:24	11/10/16 12:45
400-129952-7	MW-109	Water	11/10/16 10:20	11/10/16 12:45
400-129952-8	MW-110	Water	11/10/16 11:09	11/10/16 12:45
400-129952-9	DUP-03	Water	11/09/16 12:23	11/10/16 12:45
400-129952-10	FB-03	Water	11/10/16 08:15	11/10/16 12:45
400-129952-11	EB-03	Water	11/10/16 11:20	11/10/16 12:45
400-129952-12	DUP-04	Water	11/10/16 06:14	11/10/16 12:45

Client Sample ID: MW-101

Date Collected: 11/10/16 07:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-1

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	0.528		0.316	0.319	1.00	0.416	pCi/L	11/16/16 14:25	12/14/16 22:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.703		0.334	0.341	1.00	0.495	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*83.0*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*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	1.23		0.460	0.467	5.00	0.495	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-102

Date Collected: 11/10/16 05:41
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-2

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	0.337	U	0.282	0.283	1.00	0.420	pCi/L	11/16/16 14:25	12/14/16 22:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.58**		0.402	0.428	1.00	0.508	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*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	**1.92**		0.491	0.513	5.00	0.508	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-103

Date Collected: 11/10/16 08:43
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-3

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	1.94		0.507	0.536	1.00	0.406	pCi/L	11/16/16 14:25	12/14/16 22:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.06		0.561	0.729	1.00	0.455	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*84.5*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*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	7.00		0.756	0.905	5.00	0.455	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-104

Date Collected: 11/09/16 15:10
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-4

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	2.88		0.650	0.700	1.00	0.521	pCi/L	11/16/16 14:25	12/14/16 22:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.1*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	14.0		0.966	1.61	1.00	0.465	pCi/L	11/16/16 15:04	12/14/16 17:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.1*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*1*
Y Carrier	*80.7*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*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	16.9		1.16	1.75	5.00	0.521	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-105

Date Collected: 11/09/16 13:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-5

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	1.74		0.497	0.521	1.00	0.453	pCi/L	11/16/16 14:25	12/14/16 22:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.54		0.458	0.514	1.00	0.481	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*80.4*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*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	4.28		0.676	0.732	5.00	0.481	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-106

Date Collected: 11/09/16 12:24
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-6

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	0.615		0.352	0.356	1.00	0.460	pCi/L	11/16/16 14:25	12/14/16 22:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.553		0.306	0.310	1.00	0.456	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*83.0*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*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	1.17		0.466	0.472	5.00	0.460	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-109

Date Collected: 11/10/16 10:20
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-7

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	0.950		0.375	0.384	1.00	0.379	pCi/L	11/16/16 14:25	12/14/16 22:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.74		0.401	0.431	1.00	0.462	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*79.3*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*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	2.69		0.549	0.578	5.00	0.462	pCi/L		12/16/16 18:48	1

Client Sample ID: MW-110

Date Collected: 11/10/16 11:09
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-8

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	2.07		0.542	0.573	1.00	0.439	pCi/L	11/16/16 14:25	12/14/16 22:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.98		0.510	0.579	1.00	0.530	pCi/L	11/16/16 15:04	12/14/16 17:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:20*	*1*
Y Carrier	*78.5*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:20*	*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	5.04		0.744	0.815	5.00	0.530	pCi/L		12/16/16 18:48	1

Client Sample ID: DUP-03

Date Collected: 11/09/16 12:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-9

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	1.63		0.483	0.504	1.00	0.463	pCi/L	11/16/16 14:25	12/14/16 22:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.9*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.52		0.430	0.488	1.00	0.427	pCi/L	11/16/16 15:04	12/14/16 17:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.9*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:20*	*1*
Y Carrier	*87.1*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:20*	*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	4.14		0.646	0.702	5.00	0.463	pCi/L		12/16/16 18:48	1

Client Sample ID: FB-03

Date Collected: 11/10/16 08:15
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-10

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	0.160	U	0.287	0.287	1.00	0.500	pCi/L	11/16/16 14:25	12/14/16 22:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.122	U	0.247	0.247	1.00	0.425	pCi/L	11/16/16 15:04	12/14/16 17:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*1*
Y Carrier	*81.5*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*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	0.282	U	0.378	0.379	5.00	0.500	pCi/L		12/16/16 18:48	1

Client Sample ID: EB-03

Date Collected: 11/10/16 11:20
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-11

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	0.212	U	0.281	0.282	1.00	0.471	pCi/L	11/16/16 14:25	12/14/16 22:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0698	U	0.242	0.242	1.00	0.424	pCi/L	11/16/16 15:04	12/14/16 17:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*1*
Y Carrier	*83.0*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*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	0.282	U	0.371	0.372	5.00	0.471	pCi/L		12/16/16 18:48	1

Client Sample ID: DUP-04

Date Collected: 11/10/16 06:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-12

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	0.478		0.294	0.298	1.00	0.387	pCi/L	11/16/16 14:25	12/14/16 22:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.849		0.345	0.354	1.00	0.489	pCi/L	11/16/16 15:04	12/14/16 17:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*1*
Y Carrier	*79.3*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:18*	*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	1.33		0.453	0.462	5.00	0.489	pCi/L		12/16/16 18:48	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 11/10/16 07:14
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:30	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:19	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-102
Date Collected: 11/10/16 05:41
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:30	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:19	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-103
Date Collected: 11/10/16 08:43
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:30	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:19	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-104
Date Collected: 11/09/16 15:10
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:31	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:18	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

Client Sample ID: MW-105
Date Collected: 11/09/16 13:23
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:31	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:19	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-106
Date Collected: 11/09/16 12:24
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:31	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:19	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-109
Date Collected: 11/10/16 10:20
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:31	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:19	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: MW-110
Date Collected: 11/10/16 11:09
Date Received: 11/10/16 12:45

Lab Sample ID: 400-129952-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283970	12/14/16 22:31	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:20	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

Client Sample ID: DUP-03

Lab Sample ID: 400-129952-9

Date Collected: 11/09/16 12:23
Matrix: Water
Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283971	12/14/16 22:37	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:20	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: FB-03

Lab Sample ID: 400-129952-10

Date Collected: 11/10/16 08:15
Matrix: Water
Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283971	12/14/16 22:37	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:18	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: EB-03

Lab Sample ID: 400-129952-11

Date Collected: 11/10/16 11:20
Matrix: Water
Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283971	12/14/16 22:37	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:18	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Client Sample ID: DUP-04

Lab Sample ID: 400-129952-12

Date Collected: 11/10/16 06:14
Matrix: Water
Date Received: 11/10/16 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			279644	11/16/16 14:25	AS	TAL SL
Total/NA	Analysis	9315		1	283971	12/14/16 22:37	MLK	TAL SL
Total/NA	Prep	PrecSep_0			279649	11/16/16 15:04	AS	TAL SL
Total/NA	Analysis	9320		1	283971	12/14/16 17:18	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	284392	12/16/16 18:48	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 279644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	PrecSep-21	
400-129952-2	MW-102	Total/NA	Water	PrecSep-21	
400-129952-3	MW-103	Total/NA	Water	PrecSep-21	
400-129952-4	MW-104	Total/NA	Water	PrecSep-21	
400-129952-5	MW-105	Total/NA	Water	PrecSep-21	
400-129952-6	MW-106	Total/NA	Water	PrecSep-21	
400-129952-7	MW-109	Total/NA	Water	PrecSep-21	
400-129952-8	MW-110	Total/NA	Water	PrecSep-21	
400-129952-9	DUP-03	Total/NA	Water	PrecSep-21	
400-129952-10	FB-03	Total/NA	Water	PrecSep-21	
400-129952-11	EB-03	Total/NA	Water	PrecSep-21	
400-129952-12	DUP-04	Total/NA	Water	PrecSep-21	
MB 160-279644/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-279644/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-279644/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 279649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129952-1	MW-101	Total/NA	Water	PrecSep_0	
400-129952-2	MW-102	Total/NA	Water	PrecSep_0	
400-129952-3	MW-103	Total/NA	Water	PrecSep_0	
400-129952-4	MW-104	Total/NA	Water	PrecSep_0	
400-129952-5	MW-105	Total/NA	Water	PrecSep_0	
400-129952-6	MW-106	Total/NA	Water	PrecSep_0	
400-129952-7	MW-109	Total/NA	Water	PrecSep_0	
400-129952-8	MW-110	Total/NA	Water	PrecSep_0	
400-129952-9	DUP-03	Total/NA	Water	PrecSep_0	
400-129952-10	FB-03	Total/NA	Water	PrecSep_0	
400-129952-11	EB-03	Total/NA	Water	PrecSep_0	
400-129952-12	DUP-04	Total/NA	Water	PrecSep_0	
MB 160-279649/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-279649/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-279649/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-279644/1-A
Matrix: Water
Analysis Batch: 283970

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279644

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2003	U	0.285	0.286	1.00	0.484	pCi/L	11/16/16 14:25	12/14/16 22:29	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*11/16/16 14:25*	*12/14/16 22:29*	*1*

Lab Sample ID: LCS 160-279644/2-A
Matrix: Water
Analysis Batch: 283970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279644

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	14.28		1.82	1.00	0.415	pCi/L	129	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*82.9*		*40 - 110*

Lab Sample ID: LCSD 160-279644/3-A
Matrix: Water
Analysis Batch: 283970

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 279644

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	12.85		1.68	1.00	0.444	pCi/L	116	68 - 137	0.41	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*83.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-279649/1-A
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279649

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1720	U	0.275	0.276	1.00	0.464	pCi/L	11/16/16 15:04	12/14/16 17:19	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*
Y Carrier	*81.1*		*40 - 110*	*11/16/16 15:04*	*12/14/16 17:19*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-279649/2-A
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279649

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.1	18.19		1.95	1.00	0.461	pCi/L	129	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*82.9*		*40 - 110*
Y Carrier	*81.5*		*40 - 110*

Lab Sample ID: LCSD 160-279649/3-A
Matrix: Water
Analysis Batch: 283971

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 279649

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			14.1	17.70		1.89	1.00	0.458	pCi/L	125	56 - 140	0.13	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*83.5*		*40 - 110*
Y Carrier	*83.0*		*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 Swiles	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: 1-2
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	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 - 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-101	11/10/16	0714	G	Water			X	X	X	X		
MW-102	11/10/16	0541	G	Water								
MW-103	11/10/16	0843	G	Water								
MW-104	11/9/16	1510	G	Water								
MW-105	11/9/16	1323	G	Water								
MW-106	11/9/16	1224	G	Water								
MW-109	11/10/16	1020	G	Water								400-129952 COC
MW-110	11/10/16	1109	G	Water								
Dup-03	11/9/16	1223	G	water								
FB-03	11/10/16	0815	G	water								
EB-03	11/10/16	1120	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: 11/10/16 1245	Company: RDH	Received by:	Date/Time: 11/10/16 1245	Company: TA-PCV
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: 0.0°C, 0.0°C, 0.0°C IR5

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 Sides	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: 2-2
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	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 - 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-101~~ Dup-04	11/10/16	0614	G	Water			X	X	X	X		
~~MW-102~~				~~Water~~								
~~MW-103~~				~~Water~~								
~~MW-104~~				~~Water~~								
~~MW-105~~				~~Water~~								
~~MW-106~~				~~Water~~								
~~MW-109~~				~~Water~~								
~~MW-[illegible]~~				~~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
Brett Sides	11/10/16 1245	RSH		11/10/16 1245	TA-PEN
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:

12/21/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-129952-2
SDG Number: Landfill 1

Login Number: 129952
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.0°C, 0.0°C IR-5
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-129952-2
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132409-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
2/16/2017 5:22:01 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 20
Chain of Custody 26
Receipt Checklists 27
Certification Summary 28

Job ID: 400-132409-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132409-1

Metals
Method(s) 7470A: The method blank for prep batch 337770 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

General Chemistry
Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with batch 337952 was outside control limits. The data is considered valid because the sample results are less than 5 times the RL and the absolute difference is less than RL. (400-132315-A-11 DU).

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 337952 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Samples were re-analyzed at a dilution to verify matrix interference.

Method(s) SM 4500 Cl- E: The matrix spike duplicate (MSD) precision for analytical batch 338123 was 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 338017 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-132409-1

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	0.74		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00045	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00013	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4.0	I	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.99				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-132409-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.43		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.017		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.00059	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00015	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Chloride	6.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.6	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-132409-3

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	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.00014	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.94				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-132409-4

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
Calcium	0.56		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00074	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00013	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.05				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-307 — Lab Sample ID: 400-132409-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00053	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.98		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00054	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00011	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.98				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-132409-6

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
Calcium	0.41		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00048	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00016	I V	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

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

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 Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132409-1	MW-100	Water	01/09/17 12:03	01/09/17 14:46
400-132409-2	MW-107	Water	01/09/17 10:08	01/09/17 14:46
400-132409-3	MW-108	Water	01/09/17 09:04	01/09/17 14:46
400-132409-4	MW-306	Water	01/09/17 12:52	01/09/17 14:46
400-132409-5	MW-307	Water	01/09/17 13:49	01/09/17 14:46
400-132409-6	DUP-01	Water	01/09/17 09:08	01/09/17 14:46

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-100

Date Collected: 01/09/17 12:03
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-1

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		01/13/17 08:35	01/13/17 17:23	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 17:23	5
Barium	**0.015**		0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 17:23	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:23	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 17:23	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:23	5
Calcium	**0.74**		0.25	0.13	mg/L		01/13/17 08:35	01/13/17 17:23	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 17:23	5
Cobalt	**0.00045**	**I**	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 17:23	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 17:23	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 17:23	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 17:23	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 17:23	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 17:23	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00013**	**I V**	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:35	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4.0**	**I**	5.0	3.4	mg/L			01/10/17 13:56	1
Chloride	**5.3**		2.0	0.60	mg/L			01/11/17 10:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 13:15	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/10/17 16:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.99**				SU			01/09/17 12:03	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 01/09/17 10:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-2
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		01/13/17 08:35	01/13/17 17:27	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 17:27	5
Barium	**0.012**		0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 17:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:27	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 17:27	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:27	5
Calcium	**0.43**		0.25	0.13	mg/L		01/13/17 08:35	01/13/17 17:27	5
Chromium	**0.017**		0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 17:27	5
Cobalt	**0.00059**	**I**	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 17:27	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 17:27	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 17:27	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 17:27	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 17:27	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 17:27	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00015**	**I V**	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:37	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			01/10/17 13:56	1
Chloride	**6.1**		2.0	0.60	mg/L			01/11/17 10:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 13:18	1
Sulfate	**2.6**	**I**	5.0	1.4	mg/L			01/10/17 16:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5**				SU			01/09/17 10:08	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 01/09/17 09:04
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-3
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		01/13/17 08:35	01/13/17 17:32	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 17:32	5
Barium	**0.011**		0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 17:32	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:32	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 17:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:32	5
Calcium	**1.2**		0.25	0.13	mg/L		01/13/17 08:35	01/13/17 17:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 17:32	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 17:32	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 17:32	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 17:32	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 17:32	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 17:32	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 17:32	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00014**	**I V**	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			01/10/17 13:56	1
Chloride	**6.8**		2.0	0.60	mg/L			01/11/17 10:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 13:21	1
Sulfate	**1.5**	**I**	5.0	1.4	mg/L			01/10/17 16:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.94**				SU			01/09/17 09:04	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-306

Date Collected: 01/09/17 12:52
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-4

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		01/13/17 08:35	01/13/17 17:36	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 17:36	5
Barium	**0.013**		0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 17:36	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:36	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 17:36	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:36	5
Calcium	**0.56**		0.25	0.13	mg/L		01/13/17 08:35	01/13/17 17:36	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 17:36	5
Cobalt	**0.00074**	**I**	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 17:36	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 17:36	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 17:36	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 17:36	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 17:36	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 17:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00013**	**I V**	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:50	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			01/10/17 13:56	1
Chloride	**5.3**		2.0	0.60	mg/L			01/11/17 10:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 13:37	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/10/17 16:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.05**				SU			01/09/17 12:52	1

Client Sample ID: MW-307

Date Collected: 01/09/17 13:49
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-5

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		01/13/17 08:35	01/13/17 17:41	5
Arsenic	**0.00053**	**I**	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 17:41	5
Barium	**0.016**		0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 17:41	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:41	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 17:41	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:41	5
Calcium	**0.98**		0.25	0.13	mg/L		01/13/17 08:35	01/13/17 17:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 17:41	5
Cobalt	**0.00054**	**I**	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 17:41	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 17:41	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 17:41	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 17:41	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 17:41	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 17:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00011**	**I V**	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12**		5.0	3.4	mg/L			01/10/17 13:56	1
Chloride	**4.4**		2.0	0.60	mg/L			01/11/17 10:22	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 13:40	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/10/17 16:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.98**				SU			01/09/17 13:49	1

Client Sample ID: DUP-01

Date Collected: 01/09/17 09:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-6

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		01/13/17 08:35	01/13/17 17:45	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 17:45	5
Barium	**0.013**		0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 17:45	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:45	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 17:45	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 17:45	5
Calcium	**0.41**		0.25	0.13	mg/L		01/13/17 08:35	01/13/17 17:45	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 17:45	5
Cobalt	**0.00048**	**I**	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 17:45	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 17:45	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 17:45	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 17:45	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 17:45	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 17:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00016**	**I V**	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6.0**		5.0	3.4	mg/L			01/10/17 13:56	1
Chloride	**5.7**		2.0	0.60	mg/L			01/11/17 10:22	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 13:43	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/10/17 16:43	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-100
Date Collected: 01/09/17 12:03
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338320	01/13/17 08:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338536	01/13/17 17:23	DRE	TAL PEN
Total/NA	Prep	7470A			337770	01/10/17 08:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338116	01/11/17 09:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	337929	01/10/17 13:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338123	01/11/17 10:21	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	337952	01/10/17 13:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338017	01/10/17 16:43	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/09/17 12:03	BWS	TAL PEN

Client Sample ID: MW-107
Date Collected: 01/09/17 10:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338320	01/13/17 08:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338536	01/13/17 17:27	DRE	TAL PEN
Total/NA	Prep	7470A			337770	01/10/17 08:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338116	01/11/17 09:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	337929	01/10/17 13:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338123	01/11/17 10:21	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	337952	01/10/17 13:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338017	01/10/17 16:43	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/09/17 10:08	BWS	TAL PEN

Client Sample ID: MW-108
Date Collected: 01/09/17 09:04
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338320	01/13/17 08:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338536	01/13/17 17:32	DRE	TAL PEN
Total/NA	Prep	7470A			337770	01/10/17 08:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338116	01/11/17 09:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	337929	01/10/17 13:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338123	01/11/17 10:21	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	337952	01/10/17 13:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338017	01/10/17 16:43	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/09/17 09:04	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 01/09/17 12:52
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338320	01/13/17 08:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338536	01/13/17 17:36	DRE	TAL PEN
Total/NA	Prep	7470A			337770	01/10/17 08:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338116	01/11/17 09:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	337929	01/10/17 13:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338123	01/11/17 10:21	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	337952	01/10/17 13:37	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338017	01/10/17 16:43	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/09/17 12:52	BWS	TAL PEN

Client Sample ID: MW-307
Date Collected: 01/09/17 13:49
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338320	01/13/17 08:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338536	01/13/17 17:41	DRE	TAL PEN
Total/NA	Prep	7470A			337770	01/10/17 08:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338116	01/11/17 09:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	337929	01/10/17 13:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338123	01/11/17 10:22	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	337952	01/10/17 13:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338017	01/10/17 16:43	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/09/17 13:49	BWS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 01/09/17 09:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338320	01/13/17 08:35	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338536	01/13/17 17:45	DRE	TAL PEN
Total/NA	Prep	7470A			337770	01/10/17 08:56	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338116	01/11/17 09:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	337929	01/10/17 13:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338123	01/11/17 10:22	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	337952	01/10/17 13:43	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338017	01/10/17 16:43	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 337770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	7470A	
400-132409-2	MW-107	Total/NA	Water	7470A	
400-132409-3	MW-108	Total/NA	Water	7470A	
400-132409-4	MW-306	Total/NA	Water	7470A	
400-132409-5	MW-307	Total/NA	Water	7470A	
400-132409-6	DUP-01	Total/NA	Water	7470A	
MB 400-337770/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-337770/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-132338-B-10-C MS	Matrix Spike	Total/NA	Water	7470A	
400-132338-B-10-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 338116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	7470A	337770
400-132409-2	MW-107	Total/NA	Water	7470A	337770
400-132409-3	MW-108	Total/NA	Water	7470A	337770
400-132409-4	MW-306	Total/NA	Water	7470A	337770
400-132409-5	MW-307	Total/NA	Water	7470A	337770
400-132409-6	DUP-01	Total/NA	Water	7470A	337770
MB 400-337770/14-A	Method Blank	Total/NA	Water	7470A	337770
LCS 400-337770/15-A	Lab Control Sample	Total/NA	Water	7470A	337770
400-132338-B-10-C MS	Matrix Spike	Total/NA	Water	7470A	337770
400-132338-B-10-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	337770

Prep Batch: 338320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total Recoverable	Water	3005A	
400-132409-2	MW-107	Total Recoverable	Water	3005A	
400-132409-3	MW-108	Total Recoverable	Water	3005A	
400-132409-4	MW-306	Total Recoverable	Water	3005A	
400-132409-5	MW-307	Total Recoverable	Water	3005A	
400-132409-6	DUP-01	Total Recoverable	Water	3005A	
MB 400-338320/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-338320/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132574-C-1-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-132574-C-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-132574-C-1-B DU ^5	Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 338536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total Recoverable	Water	6020	338320
400-132409-2	MW-107	Total Recoverable	Water	6020	338320
400-132409-3	MW-108	Total Recoverable	Water	6020	338320
400-132409-4	MW-306	Total Recoverable	Water	6020	338320
400-132409-5	MW-307	Total Recoverable	Water	6020	338320
400-132409-6	DUP-01	Total Recoverable	Water	6020	338320
MB 400-338320/1-A ^5	Method Blank	Total Recoverable	Water	6020	338320
LCS 400-338320/2-A	Lab Control Sample	Total Recoverable	Water	6020	338320
400-132574-C-1-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	338320
400-132574-C-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	338320
400-132574-C-1-B DU ^5	Duplicate	Total Recoverable	Water	6020	338320

General Chemistry

Analysis Batch: 337929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	SM 2540C	
400-132409-2	MW-107	Total/NA	Water	SM 2540C	
400-132409-3	MW-108	Total/NA	Water	SM 2540C	
400-132409-4	MW-306	Total/NA	Water	SM 2540C	
400-132409-5	MW-307	Total/NA	Water	SM 2540C	
400-132409-6	DUP-01	Total/NA	Water	SM 2540C	
MB 400-337929/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-337929/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132409-2 DU	MW-107	Total/NA	Water	SM 2540C	
400-132409-6 DU	DUP-01	Total/NA	Water	SM 2540C	

Analysis Batch: 337952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	SM 4500 F C	
400-132409-2	MW-107	Total/NA	Water	SM 4500 F C	
400-132409-3	MW-108	Total/NA	Water	SM 4500 F C	
400-132409-4	MW-306	Total/NA	Water	SM 4500 F C	
400-132409-5	MW-307	Total/NA	Water	SM 4500 F C	
400-132409-6	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-337952/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-337952/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-132315-A-5 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-132315-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-132315-A-11 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 338017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-132409-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-132409-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-132409-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-132409-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
400-132409-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-338017/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-338017/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-338017/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-132315-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-132315-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 338123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-132409-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-132409-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-132409-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-132409-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-132409-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-338123/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-338123/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-338123/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-132409-4 MS	MW-306	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 338123 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-4 MSD	MW-306	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 342179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	Field Sampling	
400-132409-2	MW-107	Total/NA	Water	Field Sampling	
400-132409-3	MW-108	Total/NA	Water	Field Sampling	
400-132409-4	MW-306	Total/NA	Water	Field Sampling	
400-132409-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-338320/1-A ^5
Matrix: Water
Analysis Batch: 338536

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338320

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/13/17 08:35	01/13/17 15:11	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/13/17 08:35	01/13/17 15:11	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/13/17 08:35	01/13/17 15:11	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 15:11	5
Boron	0.021	U	0.050	0.021	mg/L		01/13/17 08:35	01/13/17 15:11	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/13/17 08:35	01/13/17 15:11	5
Calcium	0.13	U	0.25	0.13	mg/L		01/13/17 08:35	01/13/17 15:11	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/13/17 08:35	01/13/17 15:11	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/13/17 08:35	01/13/17 15:11	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/13/17 08:35	01/13/17 15:11	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/13/17 08:35	01/13/17 15:11	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/13/17 08:35	01/13/17 15:11	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/13/17 08:35	01/13/17 15:11	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/13/17 08:35	01/13/17 15:11	5

Lab Sample ID: LCS 400-338320/2-A
Matrix: Water
Analysis Batch: 338536

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338320

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0507		mg/L		101	80 - 120
Barium	0.0500	0.0499		mg/L		100	80 - 120
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Boron	0.100	0.0969		mg/L		97	80 - 120
Cadmium	0.0500	0.0500		mg/L		100	80 - 120
Calcium	5.00	4.99		mg/L		100	80 - 120
Chromium	0.0500	0.0497		mg/L		99	80 - 120
Cobalt	0.0500	0.0497		mg/L		99	80 - 120
Lead	0.0500	0.0486		mg/L		97	80 - 120
Lithium	0.0500	0.0538		mg/L		108	80 - 120
Molybdenum	0.100	0.0986		mg/L		99	80 - 120
Selenium	0.0500	0.0504		mg/L		101	80 - 120
Thallium	0.0100	0.00991		mg/L		99	80 - 120

Lab Sample ID: 400-132574-C-1-C MS ^5
Matrix: Water
Analysis Batch: 338536

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 338320

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0528		mg/L		106	75 - 125
Arsenic	0.0014		0.0500	0.0528		mg/L		103	75 - 125
Barium	0.022		0.0500	0.0726		mg/L		102	75 - 125
Beryllium	0.00034	U	0.0500	0.0524		mg/L		105	75 - 125
Boron	0.037	I	0.100	0.139		mg/L		101	75 - 125
Cadmium	0.00034	U	0.0500	0.0509		mg/L		102	75 - 125
Calcium	30		5.00	34.9		mg/L		96	75 - 125
Chromium	0.0011	U	0.0500	0.0518		mg/L		104	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-132574-C-1-C MS ^5
Matrix: Water
Analysis Batch: 338536

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 338320

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0507		mg/L		101	75 - 125
Lead	0.00035	U	0.0500	0.0483		mg/L		97	75 - 125
Lithium	0.0032	U	0.0500	0.0511		mg/L		102	75 - 125
Molybdenum	0.00085	U	0.100	0.0995		mg/L		99	75 - 125
Selenium	0.00024	U	0.0500	0.0480		mg/L		96	75 - 125
Thallium	0.000085	U	0.0100	0.00987		mg/L		99	75 - 125

Lab Sample ID: 400-132574-C-1-D MSD ^5
Matrix: Water
Analysis Batch: 338536

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 338320

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	0.0516		mg/L		103	75 - 125	2	20
Arsenic	0.0014		0.0500	0.0530		mg/L		103	75 - 125	0	20
Barium	0.022		0.0500	0.0720		mg/L		101	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0522		mg/L		104	75 - 125	0	20
Boron	0.037	I	0.100	0.135		mg/L		98	75 - 125	3	20
Cadmium	0.00034	U	0.0500	0.0504		mg/L		101	75 - 125	1	20
Calcium	30		5.00	35.2		mg/L		101	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0518		mg/L		104	75 - 125	0	20
Cobalt	0.00040	U	0.0500	0.0508		mg/L		102	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0488		mg/L		98	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0506		mg/L		101	75 - 125	1	20
Molybdenum	0.00085	U	0.100	0.0994		mg/L		99	75 - 125	0	20
Selenium	0.00024	U	0.0500	0.0473		mg/L		95	75 - 125	2	20
Thallium	0.000085	U	0.0100	0.00988		mg/L		99	75 - 125	0	20

Lab Sample ID: 400-132574-C-1-B DU ^5
Matrix: Water
Analysis Batch: 338536

Client Sample ID: Duplicate
Prep Type: Total Recoverable
Prep Batch: 338320

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	0.0010	U	0.0010	U	mg/L		NC	20
Arsenic	0.0014		0.00137		mg/L		5	20
Barium	0.022		0.0226		mg/L		4	20
Beryllium	0.00034	U	0.00034	U	mg/L		NC	20
Boron	0.037	I	0.0359	I	mg/L		4	20
Cadmium	0.00034	U	0.00034	U	mg/L		NC	20
Calcium	30		29.6		mg/L		2	20
Chromium	0.0011	U	0.0011	U	mg/L		NC	20
Cobalt	0.00040	U	0.00040	U	mg/L		NC	20
Lead	0.00035	U	0.00035	U	mg/L		NC	20
Lithium	0.0032	U	0.0032	U	mg/L		NC	20
Molybdenum	0.00085	U	0.00085	U	mg/L		NC	20
Selenium	0.00024	U	0.00024	U	mg/L		NC	20
Thallium	0.000085	U	0.000085	U	mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-337770/14-A
Matrix: Water
Analysis Batch: 338116

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 337770

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000162	I	0.00020	0.000070	mg/L		01/10/17 08:56	01/11/17 09:23	1

Lab Sample ID: LCS 400-337770/15-A
Matrix: Water
Analysis Batch: 338116

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337770

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.00103	V	mg/L		103	80 - 120		

Lab Sample ID: 400-132338-B-10-C MS
Matrix: Water
Analysis Batch: 338116

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 337770

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.00010	I V	0.00201	0.00168	J3	mg/L		78	80 - 120		

Lab Sample ID: 400-132338-B-10-D MSD
Matrix: Water
Analysis Batch: 338116

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 337770

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00010	I V	0.00201	0.00166	J3	mg/L		77	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-337929/1
Matrix: Water
Analysis Batch: 337929

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			01/10/17 13:56	1

Lab Sample ID: LCS 400-337929/2
Matrix: Water
Analysis Batch: 337929

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	268		mg/L		91	78 - 122		

Lab Sample ID: 400-132409-2 DU
Matrix: Water
Analysis Batch: 337929

Client Sample ID: MW-107
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	3.4	U		3.4	U	mg/L				NC	5

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-132409-6 DU — **Client Sample ID: DUP-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 337929

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	6.0		6.00		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-338123/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338123

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			01/11/17 09:54	1

Lab Sample ID: LCS 400-338123/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.9		mg/L		106	90 - 110

Lab Sample ID: MRL 400-338123/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338123

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.35		mg/L		117	50 - 150

Lab Sample ID: 400-132409-4 MS — **Client Sample ID: MW-306**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338123

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.3		10.0	17.2		mg/L		118	73 - 120

Lab Sample ID: 400-132409-4 MSD — **Client Sample ID: MW-306**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338123

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.3		10.0	15.4	J3	mg/L		101	73 - 120	11	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-337952/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 337952

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			01/10/17 12:04	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-337952/4
Matrix: Water
Analysis Batch: 337952

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	4.13		mg/L		103	90 - 110		

Lab Sample ID: 400-132315-A-5 MS
Matrix: Water
Analysis Batch: 337952

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	0.600	J3	mg/L		60	75 - 125		

Lab Sample ID: 400-132315-A-5 MSD
Matrix: Water
Analysis Batch: 337952

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	0.590	J3	mg/L		59	75 - 125	2	4

Lab Sample ID: 400-132315-A-11 DU
Matrix: Water
Analysis Batch: 337952

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.040	I		0.0500	I J3	mg/L				22	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-338017/6
Matrix: Water
Analysis Batch: 338017

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			01/10/17 15:58	1

Lab Sample ID: LCS 400-338017/7
Matrix: Water
Analysis Batch: 338017

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		100	90 - 110		

Lab Sample ID: MRL 400-338017/3
Matrix: Water
Analysis Batch: 338017

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	4.40	I	mg/L		88	50 - 150		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-132315-A-2 MS
Matrix: Water
Analysis Batch: 338017

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	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128

Lab Sample ID: 400-132315-A-2 MSD
Matrix: Water
Analysis Batch: 338017

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	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128	NC	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 Sayles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	SSOW#:			

Analysis Requested

400-132409 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, Ra228Ra228_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-100	1/9/17	1203	G	Water			X	X	X	X		
MW-107	1/9/17	1008		Water								
MW-108	1/9/17	0904		Water								
MW-306	1/9/17	1252		Water								
MW-307	1/9/17	1349		Water								
Dup-01	1/9/17	0908	G				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
1		1/9/17 1446	TDH		1/9/17 1946	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 4.9 °C IR6

Page 26 of 28

2/16/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132409-1
SDG Number: Background

Login Number: 132409
List Number: 1
Creator: Perez, Trina M

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	4.9°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-1
SDG: Background

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132409-2
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
2/9/2017 3:30:17 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 12
Chronicle 13
QC Association 15
QC Sample Results 16
Chain of Custody 18
Receipt Checklists 19
Certification Summary 20

Job ID: 400-132409-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132409-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-287655: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-100 (400-132409-1), MW-107 (400-132409-2), MW-108 (400-132409-3), MW-306 (400-132409-4), MW-307 (400-132409-5) and DUP-01 (400-132409-6). 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 160-287631: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-100 (400-132409-1), MW-107 (400-132409-2), MW-108 (400-132409-3), MW-306 (400-132409-4), MW-307 (400-132409-5) and DUP-01 (400-132409-6). 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 Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132409-1	MW-100	Water	01/09/17 12:03	01/09/17 14:46
400-132409-2	MW-107	Water	01/09/17 10:08	01/09/17 14:46
400-132409-3	MW-108	Water	01/09/17 09:04	01/09/17 14:46
400-132409-4	MW-306	Water	01/09/17 12:52	01/09/17 14:46
400-132409-5	MW-307	Water	01/09/17 13:49	01/09/17 14:46
400-132409-6	DUP-01	Water	01/09/17 09:08	01/09/17 14:46

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 01/09/17 12:03
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-1
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	**0.432**		0.180	0.184	1.00	0.187	pCi/L	01/12/17 09:27	02/07/17 07:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.432	U	0.313	0.316	1.00	0.490	pCi/L	01/12/17 10:42	02/04/17 15:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.6*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:58*	*1*
Y Carrier	*81.5*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:58*	*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	**0.865**		0.361	0.365	5.00	0.490	pCi/L		02/07/17 17:25	1

Client Sample ID: MW-107

Date Collected: 01/09/17 10:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-2

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	0.453		0.188	0.192	1.00	0.214	pCi/L	01/12/17 09:27	02/07/17 07:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.6*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.481		0.286	0.289	1.00	0.433	pCi/L	01/12/17 10:42	02/04/17 15:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.6*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*1*
Y Carrier	*81.5*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*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	0.934		0.342	0.347	5.00	0.433	pCi/L		02/07/17 17:25	1

Client Sample ID: MW-108

Date Collected: 01/09/17 09:04
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-3

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	0.531		0.187	0.193	1.00	0.173	pCi/L	01/12/17 09:27	02/07/17 07:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.71		0.388	0.419	1.00	0.462	pCi/L	01/12/17 10:42	02/04/17 15:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*1*
Y Carrier	*81.5*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*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		0.430	0.461	5.00	0.462	pCi/L		02/07/17 17:25	1

Client Sample ID: MW-306

Date Collected: 01/09/17 12:52
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-4

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	0.315		0.165	0.167	1.00	0.203	pCi/L	01/12/17 09:27	02/07/17 07:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.452		0.261	0.265	1.00	0.392	pCi/L	01/12/17 10:42	02/04/17 15:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*1*
Y Carrier	*87.5*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*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	0.767		0.309	0.313	5.00	0.392	pCi/L		02/07/17 17:25	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Client Sample ID: MW-307
Date Collected: 01/09/17 13:49
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-5
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	0.134	U	0.127	0.127	1.00	0.193	pCi/L	01/12/17 09:27	02/07/17 07:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.408	U	0.308	0.310	1.00	0.484	pCi/L	01/12/17 10:42	02/04/17 15:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*1*
Y Carrier	*82.2*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*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	**0.541**		0.333	0.335	5.00	0.484	pCi/L		02/07/17 17:25	1

Client Sample ID: DUP-01
Date Collected: 01/09/17 09:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-6
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	0.639		0.205	0.213	1.00	0.180	pCi/L	01/12/17 09:27	02/07/17 07:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.463		0.285	0.288	1.00	0.435	pCi/L	01/12/17 10:42	02/04/17 15:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*1*
Y Carrier	*86.0*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:59*	*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	1.10		0.351	0.358	5.00	0.435	pCi/L		02/07/17 17:25	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 01/09/17 12:03
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287631	01/12/17 09:27	AS	TAL SL
Total/NA	Analysis	9315		1	291322	02/07/17 07:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287655	01/12/17 10:42	AS	TAL SL
Total/NA	Analysis	9320		1	290976	02/04/17 15:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291406	02/07/17 17:25	RTM	TAL SL

Client Sample ID: MW-107
Date Collected: 01/09/17 10:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287631	01/12/17 09:27	AS	TAL SL
Total/NA	Analysis	9315		1	291322	02/07/17 07:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287655	01/12/17 10:42	AS	TAL SL
Total/NA	Analysis	9320		1	290976	02/04/17 15:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291406	02/07/17 17:25	RTM	TAL SL

Client Sample ID: MW-108
Date Collected: 01/09/17 09:04
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287631	01/12/17 09:27	AS	TAL SL
Total/NA	Analysis	9315		1	291322	02/07/17 07:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287655	01/12/17 10:42	AS	TAL SL
Total/NA	Analysis	9320		1	290976	02/04/17 15:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291406	02/07/17 17:25	RTM	TAL SL

Client Sample ID: MW-306
Date Collected: 01/09/17 12:52
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287631	01/12/17 09:27	AS	TAL SL
Total/NA	Analysis	9315		1	291322	02/07/17 07:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287655	01/12/17 10:42	AS	TAL SL
Total/NA	Analysis	9320		1	290976	02/04/17 15:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291406	02/07/17 17:25	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Client Sample ID: MW-307
Date Collected: 01/09/17 13:49
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287631	01/12/17 09:27	AS	TAL SL
Total/NA	Analysis	9315		1	291322	02/07/17 07:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287655	01/12/17 10:42	AS	TAL SL
Total/NA	Analysis	9320		1	290976	02/04/17 15:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291406	02/07/17 17:25	RTM	TAL SL

Client Sample ID: DUP-01
Date Collected: 01/09/17 09:08
Date Received: 01/09/17 14:46

Lab Sample ID: 400-132409-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287631	01/12/17 09:27	AS	TAL SL
Total/NA	Analysis	9315		1	291322	02/07/17 07:19	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287655	01/12/17 10:42	AS	TAL SL
Total/NA	Analysis	9320		1	290976	02/04/17 15:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291406	02/07/17 17:25	RTM	TAL SL

Laboratory References:

TAL SL = 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 Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Rad

Prep Batch: 287631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	PrecSep-21	
400-132409-2	MW-107	Total/NA	Water	PrecSep-21	
400-132409-3	MW-108	Total/NA	Water	PrecSep-21	
400-132409-4	MW-306	Total/NA	Water	PrecSep-21	
400-132409-5	MW-307	Total/NA	Water	PrecSep-21	
400-132409-6	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-287631/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-287631/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-287631/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 287655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132409-1	MW-100	Total/NA	Water	PrecSep_0	
400-132409-2	MW-107	Total/NA	Water	PrecSep_0	
400-132409-3	MW-108	Total/NA	Water	PrecSep_0	
400-132409-4	MW-306	Total/NA	Water	PrecSep_0	
400-132409-5	MW-307	Total/NA	Water	PrecSep_0	
400-132409-6	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-287655/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-287655/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-287655/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-287631/1-A
Matrix: Water
Analysis Batch: 291322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287631

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05317	U	0.108	0.109	1.00	0.196	pCi/L	01/12/17 09:27	02/07/17 07:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*01/12/17 09:27*	*02/07/17 07:17*	*1*

Lab Sample ID: LCS 160-287631/2-A
Matrix: Water
Analysis Batch: 291322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287631

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	12.41		1.38	1.00	0.191	pCi/L	112	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.3*		*40 - 110*

Lab Sample ID: LCSD 160-287631/3-A
Matrix: Water
Analysis Batch: 291322

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 287631

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.1	15.05		1.63	1.00	0.208	pCi/L	136	68 - 137	0.87	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.0*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-287655/1-A
Matrix: Water
Analysis Batch: 290976

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287655

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6049		0.380	0.384	1.00	0.591	pCi/L	01/12/17 10:42	02/04/17 15:58	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:58*	*1*
Y Carrier	*80.0*		*40 - 110*	*01/12/17 10:42*	*02/04/17 15:58*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-287655/2-A
Matrix: Water
Analysis Batch: 290976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287655

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.9	17.33		1.86	1.00	0.461	pCi/L	125	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.3*		*40 - 110*
Y Carrier	*80.7*		*40 - 110*

Lab Sample ID: LCSD 160-287655/3-A
Matrix: Water
Analysis Batch: 290976

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 287655

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.9	16.72		1.81	1.00	0.478	pCi/L	120	56 - 140	0.17	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.0*		*40 - 110*
Y Carrier	*78.5*		*40 - 110*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-132445-A-5 DU
Matrix: Water
Analysis Batch: 291406

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	0.255	U		0.6918		0.350	5.00	0.476	pCi/L			0.68	

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 Sules	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	SSOW#:			

Analysis Requested

400-132409 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 - 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-100	1/9/17	1203	G	Water			X	X	X	X		
MW-107	1/9/17	1008		Water								
MW-108	1/9/17	0904		Water								
MW-306	1/9/17	1252		Water								
MW-307	1/9/17	1349		Water								
Dup-01	1/9/17	0908	G				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
1		1/9/17 1446	TDH		1/9/17 1946	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 4.9 °C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132409-2
SDG Number: Background

Login Number: 132409
List Number: 1
Creator: Perez, Trina M

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	4.9°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132409-2
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132603-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
2/16/2017 5:22:34 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 21
Chronicle 22
QC Association 27
QC Sample Results 31
Chain of Custody 39
Receipt Checklists 40
Certification Summary 41

Job ID: 400-132603-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132603-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-132603-4) and MW-110 (400-132603-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 338842 were outside control limits. Sample matrix interference are suspected because the associated laboratory control sample LCS) precision was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MSD) recoveries for analytical batch 338925 were outside control limits. Sample matrix interference are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MSD) recoveries for analytical batch 338840 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-132603-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0092		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.42		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.00049	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-132603-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0085		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.63		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.79				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-132603-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.058		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.44		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0028		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	35		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.95				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-132603-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0071		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.030		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0014	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	11		1.0	0.42	mg/L	100		6020	Total Recoverable
Cadmium	0.00049	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	56		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0024	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-132603-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.025		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0027		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.028		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.022		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00032	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0025		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1600		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	200		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.42		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	670		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.01				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-132603-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0035		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.90		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	66		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0052	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	330		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	34		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	31		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.04				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-132603-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.44		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00045	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.12				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-132603-7

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-109 (Continued) — Lab Sample ID: 400-132603-7

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
Boron	0.059		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0045		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0045	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.67				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-132603-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	4.0		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0048		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0073		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0034		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00026	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0052		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	630		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	130		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	240		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-132603-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0036		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.043		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.85		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	65		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0018	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0050	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	350		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	34		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-03 (Continued) — Lab Sample ID: 400-132603-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	31		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 400-132603-10

No Detections.

Client Sample ID: FB-02 — Lab Sample ID: 400-132603-11

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 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

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 Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132603-1	MW-101	Water	01/11/17 10:02	01/12/17 17:47
400-132603-2	MW-102	Water	01/12/17 16:00	01/12/17 17:47
400-132603-3	MW-103	Water	01/12/17 14:38	01/12/17 17:47
400-132603-4	MW-104	Water	01/11/17 15:48	01/12/17 17:47
400-132603-5	MW-105	Water	01/11/17 14:02	01/12/17 17:47
400-132603-6	MW-106	Water	01/11/17 11:53	01/12/17 17:47
400-132603-7	MW-109	Water	01/12/17 12:54	01/12/17 17:47
400-132603-8	MW-110	Water	01/12/17 11:30	01/12/17 17:47
400-132603-9	DUP-03	Water	01/11/17 13:02	01/12/17 17:47
400-132603-10	EB-02	Water	01/12/17 13:55	01/12/17 17:47
400-132603-11	FB-02	Water	01/12/17 15:40	01/12/17 17:47

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-101

Date Collected: 01/11/17 10:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-1

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		01/16/17 08:30	01/16/17 18:49	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 18:49	5
Barium	**0.0092**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 18:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 18:49	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 18:49	5
Calcium	**0.42**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 18:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 18:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 18:49	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 18:49	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 18:49	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 18:49	5
Selenium	**0.00049**	**I**	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 18:49	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 18:49	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		01/16/17 16:12	01/18/17 12:53	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			01/14/17 15:45	1
Chloride	**5.3**		2.0	0.60	mg/L			01/17/17 16:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 14:57	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/17/17 14:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.87**				SU			01/11/17 10:02	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-102

Date Collected: 01/12/17 16:00
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-2

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		01/16/17 08:30	01/16/17 19:11	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 19:11	5
Barium	**0.0085**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 19:11	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:11	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:11	5
Calcium	**0.63**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 19:11	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 19:11	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 19:11	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 19:11	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 19:11	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 19:11	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 19:11	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 19:11	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		01/16/17 16:12	01/18/17 12:55	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**54**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**5.6**		2.0	0.60	mg/L			01/17/17 16:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:05	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 09:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.79**				SU			01/12/17 16:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-103

Date Collected: 01/12/17 14:38
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-3

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		01/16/17 08:30	01/16/17 19:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 19:16	5
Barium	**0.058**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 19:16	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:16	5
Boron	**0.44**		0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:34	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:16	5
Calcium	**3.3**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 19:16	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 19:16	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 19:16	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 19:16	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 19:16	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 19:16	5
Selenium	**0.0028**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 19:16	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 19:16	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		01/16/17 16:12	01/18/17 12:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**9.2**		2.0	0.60	mg/L			01/17/17 16:37	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:08	1
Sulfate	**35**		5.0	1.4	mg/L			01/18/17 09:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.95**				SU			01/12/17 14:38	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-104

Date Collected: 01/11/17 15:48
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-4

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		01/16/17 08:30	01/16/17 19:20	5
Arsenic	**0.0071**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 19:20	5
Barium	**0.030**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 19:20	5
Beryllium	**0.0014**	**I**	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:20	5
Boron	**11**		1.0	0.42	mg/L		01/16/17 08:30	01/17/17 13:38	100
Cadmium	**0.00049**	**I**	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:20	5
Calcium	**56**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 19:20	5
Chromium	**0.0024**	**I**	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 19:20	5
Cobalt	**0.025**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 19:20	5
Lead	**0.0027**		0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 19:20	5
Lithium	**0.028**		0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 19:20	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 19:20	5
Selenium	**0.022**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 19:20	5
Thallium	**0.00032**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 19:20	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0025**		0.00020	0.000070	mg/L		01/16/17 16:12	01/18/17 12:57	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1600**		5.0	3.4	mg/L			01/14/17 15:45	1
Chloride	**200**		20	6.0	mg/L			01/18/17 10:30	10
Fluoride	**0.42**		0.10	0.032	mg/L			01/24/17 15:11	1
Sulfate	**670**		100	28	mg/L			01/18/17 09:48	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.01**				SU			01/11/17 15:48	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-105

Date Collected: 01/11/17 14:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-5

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		01/16/17 08:30	01/16/17 19:48	5
Arsenic	**0.0035**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 19:48	5
Barium	**0.042**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 19:48	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:48	5
Boron	**0.90**		0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:43	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:48	5
Calcium	**66**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 19:48	5
Chromium	**0.0020**	**I**	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 19:48	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 19:48	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 19:48	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 19:48	5
Molybdenum	**0.0052**	**I**	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 19:48	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 19:48	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 19:48	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		01/16/17 16:12	01/18/17 12:58	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**330**		5.0	3.4	mg/L			01/14/17 15:45	1
Chloride	**34**		2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:14	1
Sulfate	**31**		5.0	1.4	mg/L			01/18/17 09:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.04**				SU			01/11/17 14:02	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-106

Date Collected: 01/11/17 11:53
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-6

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		01/16/17 08:30	01/16/17 19:52	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 19:52	5
Barium	**0.010**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 19:52	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:52	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:47	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:52	5
Calcium	**0.44**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 19:52	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 19:52	5
Cobalt	**0.00045**	**I**	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 19:52	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 19:52	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 19:52	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 19:52	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 19:52	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 19:52	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		01/16/17 16:12	01/18/17 13:00	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**28**		5.0	3.4	mg/L			01/14/17 15:45	1
Chloride	**4.1**		2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:16	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 09:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.12**				SU			01/11/17 11:53	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-109

Date Collected: 01/12/17 12:54
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-7

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		01/16/17 08:30	01/16/17 19:57	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 19:57	5
Barium	**0.018**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 19:57	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:57	5
Boron	**0.059**		0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:52	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 19:57	5
Calcium	**2.9**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 19:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 19:57	5
Cobalt	**0.0045**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 19:57	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 19:57	5
Lithium	**0.0045**	**I**	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 19:57	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 19:57	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 19:57	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 19:57	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		01/16/17 16:12	01/18/17 13:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**40**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**4.4**		2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:19	1
Sulfate	**12**		5.0	1.4	mg/L			01/18/17 09:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.67**				SU			01/12/17 12:54	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-110

Date Collected: 01/12/17 11:30
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-8

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		01/16/17 08:30	01/16/17 20:01	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 20:01	5
Barium	**0.047**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 20:01	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:01	5
Boron	**4.0**		0.25	0.11	mg/L		01/16/17 08:30	01/17/17 13:56	25
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:01	5
Calcium	**27**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 20:01	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 20:01	5
Cobalt	**0.0048**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 20:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 20:01	5
Lithium	**0.0073**		0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 20:01	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 20:01	5
Selenium	**0.0034**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 20:01	5
Thallium	**0.00026**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 20:01	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0052**		0.00020	0.000070	mg/L		01/16/17 16:12	01/18/17 13:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**630**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**130**		10	3.0	mg/L			01/18/17 10:30	5
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:39	1
Sulfate	**240**		50	14	mg/L			01/18/17 09:48	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.84**				SU			01/12/17 11:30	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: DUP-03
Date Collected: 01/11/17 13:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-9
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		01/16/17 08:30	01/16/17 20:06	5
Arsenic	**0.0036**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 20:06	5
Barium	**0.043**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 20:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:06	5
Boron	**0.85**		0.050	0.021	mg/L		01/16/17 08:30	01/17/17 14:23	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:06	5
Calcium	**65**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 20:06	5
Chromium	**0.0018**	**I**	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 20:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 20:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 20:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 20:06	5
Molybdenum	**0.0050**	**I**	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 20:06	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 20:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 20:06	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		01/16/17 16:12	01/18/17 13:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**350**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**34**		2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:44	1
Sulfate	**31**		5.0	1.4	mg/L			01/18/17 09:26	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: EB-02

Date Collected: 01/12/17 13:55
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-10

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		01/16/17 08:30	01/16/17 20:10	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 20:10	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 20:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:10	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 14:28	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:10	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 20:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 20:10	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 20:10	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 20:10	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 20:10	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 20:10	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 20:10	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 20:10	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		01/16/17 16:12	01/18/17 13:14	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			01/14/17 16:22	1
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:46	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 09:29	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: FB-02
Date Collected: 01/12/17 15:40
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-11
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		01/16/17 08:30	01/16/17 20:15	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 20:15	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 20:15	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:15	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 14:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 20:15	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 20:15	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 20:15	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 20:15	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 20:15	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 20:15	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 20:15	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 20:15	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 20:15	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		01/16/17 16:12	01/18/17 13:16	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			01/15/17 14:05	1
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:48	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 09:29	1

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-101

Date Collected: 01/11/17 10:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 18:49	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 13:25	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 12:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338503	01/14/17 15:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338842	01/17/17 16:37	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 14:57	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338840	01/17/17 14:44	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/11/17 10:02	BWS	TAL PEN

Client Sample ID: MW-102

Date Collected: 01/12/17 16:00
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 19:11	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 13:29	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 12:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338842	01/17/17 16:37	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:05	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 16:00	BWS	TAL PEN

Client Sample ID: MW-103

Date Collected: 01/12/17 14:38
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 19:16	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 13:34	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338842	01/17/17 16:37	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: MW-103

Date Collected: 01/12/17 14:38
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-3

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	339638	01/24/17 15:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 14:38	BWS	TAL PEN

Client Sample ID: MW-104

Date Collected: 01/11/17 15:48
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 19:20	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		100	338854	01/17/17 13:38	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 12:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338503	01/14/17 15:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	338925	01/18/17 10:30	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	338923	01/18/17 09:48	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/11/17 15:48	BWS	TAL PEN

Client Sample ID: MW-105

Date Collected: 01/11/17 14:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 19:48	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 13:43	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 12:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338503	01/14/17 15:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:14	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/11/17 14:02	BWS	TAL PEN

Client Sample ID: MW-106

Date Collected: 01/11/17 11:53
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 19:52	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 13:47	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 13:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338503	01/14/17 15:45	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/11/17 11:53	BWS	TAL PEN

Client Sample ID: MW-109

Date Collected: 01/12/17 12:54
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 19:57	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 13:52	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 13:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 12:54	BWS	TAL PEN

Client Sample ID: MW-110

Date Collected: 01/12/17 11:30
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 20:01	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	338854	01/17/17 13:56	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 13:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	338925	01/18/17 10:30	BJB	TAL PEN

Client Sample ID: MW-110

Lab Sample ID: 400-132603-8

Date Collected: 01/12/17 11:30

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:39	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	338923	01/18/17 09:48	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 11:30	BWS	TAL PEN

Client Sample ID: DUP-03

Lab Sample ID: 400-132603-9

Date Collected: 01/11/17 13:02

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 20:06	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 14:23	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 13:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:26	BJB	TAL PEN

Client Sample ID: EB-02

Lab Sample ID: 400-132603-10

Date Collected: 01/12/17 13:55

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 20:10	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 14:28	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 13:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:29	BJB	TAL PEN

Client Sample ID: FB-02

Lab Sample ID: 400-132603-11

Date Collected: 01/12/17 15:40

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Client Sample ID: FB-02

Date Collected: 01/12/17 15:40
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020		5	338693	01/16/17 20:15	DRE	TAL PEN
Total Recoverable	Prep	3005A			338435	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 14:32	DRE	TAL PEN
Total/NA	Prep	7470A			338653	01/16/17 16:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338941	01/18/17 13:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:48	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:29	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 338435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total Recoverable	Water	3005A	
400-132603-2	MW-102	Total Recoverable	Water	3005A	
400-132603-3	MW-103	Total Recoverable	Water	3005A	
400-132603-4	MW-104	Total Recoverable	Water	3005A	
400-132603-5	MW-105	Total Recoverable	Water	3005A	
400-132603-6	MW-106	Total Recoverable	Water	3005A	
400-132603-7	MW-109	Total Recoverable	Water	3005A	
400-132603-8	MW-110	Total Recoverable	Water	3005A	
400-132603-9	DUP-03	Total Recoverable	Water	3005A	
400-132603-10	EB-02	Total Recoverable	Water	3005A	
400-132603-11	FB-02	Total Recoverable	Water	3005A	
MB 400-338435/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-338435/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132603-1 MS	MW-101	Total Recoverable	Water	3005A	
400-132603-1 MSD	MW-101	Total Recoverable	Water	3005A	

Prep Batch: 338653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	7470A	
400-132603-2	MW-102	Total/NA	Water	7470A	
400-132603-3	MW-103	Total/NA	Water	7470A	
400-132603-4	MW-104	Total/NA	Water	7470A	
400-132603-5	MW-105	Total/NA	Water	7470A	
400-132603-6	MW-106	Total/NA	Water	7470A	
400-132603-7	MW-109	Total/NA	Water	7470A	
400-132603-8	MW-110	Total/NA	Water	7470A	
400-132603-9	DUP-03	Total/NA	Water	7470A	
400-132603-10	EB-02	Total/NA	Water	7470A	
400-132603-11	FB-02	Total/NA	Water	7470A	
MB 400-338653/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-338653/15-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 338693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total Recoverable	Water	6020	338435
400-132603-2	MW-102	Total Recoverable	Water	6020	338435
400-132603-3	MW-103	Total Recoverable	Water	6020	338435
400-132603-4	MW-104	Total Recoverable	Water	6020	338435
400-132603-5	MW-105	Total Recoverable	Water	6020	338435
400-132603-6	MW-106	Total Recoverable	Water	6020	338435
400-132603-7	MW-109	Total Recoverable	Water	6020	338435
400-132603-8	MW-110	Total Recoverable	Water	6020	338435
400-132603-9	DUP-03	Total Recoverable	Water	6020	338435
400-132603-10	EB-02	Total Recoverable	Water	6020	338435
400-132603-11	FB-02	Total Recoverable	Water	6020	338435
MB 400-338435/1-A ^5	Method Blank	Total Recoverable	Water	6020	338435
LCS 400-338435/2-A	Lab Control Sample	Total Recoverable	Water	6020	338435
400-132603-1 MS	MW-101	Total Recoverable	Water	6020	338435
400-132603-1 MSD	MW-101	Total Recoverable	Water	6020	338435

Metals (Continued)

Analysis Batch: 338854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total Recoverable	Water	6020	338435
400-132603-2	MW-102	Total Recoverable	Water	6020	338435
400-132603-3	MW-103	Total Recoverable	Water	6020	338435
400-132603-4	MW-104	Total Recoverable	Water	6020	338435
400-132603-5	MW-105	Total Recoverable	Water	6020	338435
400-132603-6	MW-106	Total Recoverable	Water	6020	338435
400-132603-7	MW-109	Total Recoverable	Water	6020	338435
400-132603-8	MW-110	Total Recoverable	Water	6020	338435
400-132603-9	DUP-03	Total Recoverable	Water	6020	338435
400-132603-10	EB-02	Total Recoverable	Water	6020	338435
400-132603-11	FB-02	Total Recoverable	Water	6020	338435
MB 400-338435/1-A ^5	Method Blank	Total Recoverable	Water	6020	338435
LCS 400-338435/2-A	Lab Control Sample	Total Recoverable	Water	6020	338435

Analysis Batch: 338941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	7470A	338653
400-132603-2	MW-102	Total/NA	Water	7470A	338653
400-132603-3	MW-103	Total/NA	Water	7470A	338653
400-132603-4	MW-104	Total/NA	Water	7470A	338653
400-132603-5	MW-105	Total/NA	Water	7470A	338653
400-132603-6	MW-106	Total/NA	Water	7470A	338653
400-132603-7	MW-109	Total/NA	Water	7470A	338653
400-132603-8	MW-110	Total/NA	Water	7470A	338653
400-132603-9	DUP-03	Total/NA	Water	7470A	338653
400-132603-10	EB-02	Total/NA	Water	7470A	338653
400-132603-11	FB-02	Total/NA	Water	7470A	338653
MB 400-338653/14-A	Method Blank	Total/NA	Water	7470A	338653
LCS 400-338653/15-A	Lab Control Sample	Total/NA	Water	7470A	338653

General Chemistry

Analysis Batch: 338503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	SM 2540C	
400-132603-4	MW-104	Total/NA	Water	SM 2540C	
400-132603-5	MW-105	Total/NA	Water	SM 2540C	
400-132603-6	MW-106	Total/NA	Water	SM 2540C	
MB 400-338503/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338503/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132574-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 338504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-2	MW-102	Total/NA	Water	SM 2540C	
400-132603-3	MW-103	Total/NA	Water	SM 2540C	
400-132603-7	MW-109	Total/NA	Water	SM 2540C	
400-132603-8	MW-110	Total/NA	Water	SM 2540C	
400-132603-9	DUP-03	Total/NA	Water	SM 2540C	
400-132603-10	EB-02	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 338504 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-338504/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338504/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132574-A-11 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 338524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-11	FB-02	Total/NA	Water	SM 2540C	
MB 400-338524/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338524/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132607-A-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 338840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
MB 400-338840/8	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-338840/9	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-338840/5	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-132574-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-132574-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 338842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-132603-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-132603-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
MB 400-338842/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-338842/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-338842/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-132574-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-132574-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 338923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-132603-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-132603-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-132603-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-132603-6	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-132603-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-132603-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-132603-9	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-132603-10	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-132603-11	FB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-338923/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-338923/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-338923/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-132603-10 MS	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-132603-10 MSD	EB-02	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 338925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-132603-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-132603-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-132603-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-132603-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-132603-9	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-132603-10	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-132603-11	FB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-338925/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-338925/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-338925/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-132603-10 MS	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-132603-10 MSD	EB-02	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 339638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	SM 4500 F C	
400-132603-2	MW-102	Total/NA	Water	SM 4500 F C	
400-132603-3	MW-103	Total/NA	Water	SM 4500 F C	
400-132603-4	MW-104	Total/NA	Water	SM 4500 F C	
400-132603-5	MW-105	Total/NA	Water	SM 4500 F C	
400-132603-6	MW-106	Total/NA	Water	SM 4500 F C	
400-132603-7	MW-109	Total/NA	Water	SM 4500 F C	
400-132603-8	MW-110	Total/NA	Water	SM 4500 F C	
400-132603-9	DUP-03	Total/NA	Water	SM 4500 F C	
400-132603-10	EB-02	Total/NA	Water	SM 4500 F C	
400-132603-11	FB-02	Total/NA	Water	SM 4500 F C	
MB 400-339638/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-339638/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-132603-1 MS	MW-101	Total/NA	Water	SM 4500 F C	
400-132603-1 MSD	MW-101	Total/NA	Water	SM 4500 F C	
400-132603-8 DU	MW-110	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 342179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	Field Sampling	
400-132603-2	MW-102	Total/NA	Water	Field Sampling	
400-132603-3	MW-103	Total/NA	Water	Field Sampling	
400-132603-4	MW-104	Total/NA	Water	Field Sampling	
400-132603-5	MW-105	Total/NA	Water	Field Sampling	
400-132603-6	MW-106	Total/NA	Water	Field Sampling	
400-132603-7	MW-109	Total/NA	Water	Field Sampling	
400-132603-8	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-338435/1-A ^5
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/16/17 08:30	01/16/17 18:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 18:40	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 18:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 18:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 18:40	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 18:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 18:40	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 18:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 18:40	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 18:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 18:40	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 18:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 18:40	5

Lab Sample ID: MB 400-338435/1-A ^5
Matrix: Water
Analysis Batch: 338854

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/16/17 08:30	01/17/17 13:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/17/17 13:16	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/17/17 13:16	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/17/17 13:16	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 13:16	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/17/17 13:16	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/17/17 13:16	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/17/17 13:16	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/17/17 13:16	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/17/17 13:16	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/17/17 13:16	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/17/17 13:16	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/17/17 13:16	5

Lab Sample ID: LCS 400-338435/2-A
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0506		mg/L		101	80 - 120
Arsenic	0.0500	0.0503		mg/L		101	80 - 120
Barium	0.0500	0.0490		mg/L		98	80 - 120
Beryllium	0.0500	0.0489		mg/L		98	80 - 120
Cadmium	0.0500	0.0504		mg/L		101	80 - 120
Calcium	5.00	4.77		mg/L		95	80 - 120
Chromium	0.0500	0.0493		mg/L		99	80 - 120
Cobalt	0.0500	0.0475		mg/L		95	80 - 120
Lead	0.0500	0.0492		mg/L		98	80 - 120
Lithium	0.0500	0.0506		mg/L		101	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-338435/2-A
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.100	0.0993		mg/L		99	80 - 120
Selenium	0.0500	0.0506		mg/L		101	80 - 120
Thallium	0.0100	0.0101		mg/L		101	80 - 120

Lab Sample ID: LCS 400-338435/2-A
Matrix: Water
Analysis Batch: 338854

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0518		mg/L		104	80 - 120
Arsenic	0.0500	0.0515		mg/L		103	80 - 120
Barium	0.0500	0.0503		mg/L		101	80 - 120
Beryllium	0.0500	0.0495		mg/L		99	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0501		mg/L		100	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Chromium	0.0500	0.0483		mg/L		97	80 - 120
Cobalt	0.0500	0.0488		mg/L		98	80 - 120
Lead	0.0500	0.0486		mg/L		97	80 - 120
Molybdenum	0.100	0.0996		mg/L		100	80 - 120
Selenium	0.0500	0.0502		mg/L		100	80 - 120
Thallium	0.0100	0.00994		mg/L		99	80 - 120

Lab Sample ID: 400-132603-1 MS
Matrix: Water
Analysis Batch: 338693

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0518		mg/L		104	75 - 125
Arsenic	0.00046	U	0.0500	0.0501		mg/L		100	75 - 125
Barium	0.0092		0.0500	0.0590		mg/L		100	75 - 125
Beryllium	0.00034	U	0.0500	0.0516		mg/L		103	75 - 125
Cadmium	0.00034	U	0.0500	0.0493		mg/L		99	75 - 125
Calcium	0.42		5.00	5.10		mg/L		94	75 - 125
Chromium	0.0011	U	0.0500	0.0495		mg/L		99	75 - 125
Cobalt	0.00040	U	0.0500	0.0483		mg/L		97	75 - 125
Lead	0.00035	U	0.0500	0.0487		mg/L		97	75 - 125
Lithium	0.0032	U	0.0500	0.0495		mg/L		99	75 - 125
Molybdenum	0.00085	U	0.100	0.0992		mg/L		99	75 - 125
Selenium	0.00049	I	0.0500	0.0509		mg/L		101	75 - 125
Thallium	0.000085	U	0.0100	0.00990		mg/L		99	75 - 125

Lab Sample ID: 400-132603-1 MSD
Matrix: Water
Analysis Batch: 338693

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 338435

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	0.0517		mg/L		103	75 - 125	0	20
Arsenic	0.00046	U	0.0500	0.0504		mg/L		101	75 - 125	1	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-132603-1 MSD
Matrix: Water
Analysis Batch: 338693

Client Sample ID: MW-101
Prep Type: Total Recoverable
Prep Batch: 338435

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.0092		0.0500	0.0591		mg/L		100	75 - 125	0	20
Beryllium	0.00034	U	0.0500	0.0506		mg/L		101	75 - 125	2	20
Cadmium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125	4	20
Calcium	0.42		5.00	5.17		mg/L		95	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0498		mg/L		100	75 - 125	1	20
Cobalt	0.00040	U	0.0500	0.0486		mg/L		97	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0495		mg/L		99	75 - 125	2	20
Lithium	0.0032	U	0.0500	0.0488		mg/L		98	75 - 125	1	20
Molybdenum	0.00085	U	0.100	0.101		mg/L		101	75 - 125	2	20
Selenium	0.00049	I	0.0500	0.0508		mg/L		101	75 - 125	0	20
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-338653/14-A
Matrix: Water
Analysis Batch: 338941

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 338653

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		01/16/17 16:11	01/18/17 12:35	1

Lab Sample ID: LCS 400-338653/15-A
Matrix: Water
Analysis Batch: 338941

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 338653

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00110		mg/L		109	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-338503/1
Matrix: Water
Analysis Batch: 338503

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			01/14/17 15:45	1

Lab Sample ID: LCS 400-338503/2
Matrix: Water
Analysis Batch: 338503

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	280		mg/L		96	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-132574-B-1 DU
Matrix: Water
Analysis Batch: 338503

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	160			164		mg/L				0	5

Lab Sample ID: MB 400-338504/1
Matrix: Water
Analysis Batch: 338504

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			01/14/17 16:22	1

Lab Sample ID: LCS 400-338504/2
Matrix: Water
Analysis Batch: 338504

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	292		mg/L		100	78 - 122		

Lab Sample ID: 400-132574-A-11 DU
Matrix: Water
Analysis Batch: 338504

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	530			530		mg/L				0.4	5

Lab Sample ID: MB 400-338524/1
Matrix: Water
Analysis Batch: 338524

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			01/15/17 14:05	1

Lab Sample ID: LCS 400-338524/2
Matrix: Water
Analysis Batch: 338524

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	242		mg/L		83	78 - 122		

Lab Sample ID: 400-132607-A-6 DU
Matrix: Water
Analysis Batch: 338524

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	790			794		mg/L				0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-338842/6
Matrix: Water
Analysis Batch: 338842

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			01/17/17 13:27	1

Lab Sample ID: LCS 400-338842/7
Matrix: Water
Analysis Batch: 338842

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	31.4		mg/L		105	90 - 110

Lab Sample ID: MRL 400-338842/3
Matrix: Water
Analysis Batch: 338842

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	1.95	I	mg/L		97	50 - 150

Lab Sample ID: 400-132574-A-10 MS
Matrix: Water
Analysis Batch: 338842

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	0.60	U	10.0	13.5	J3	mg/L		135	73 - 120

Lab Sample ID: 400-132574-A-10 MSD
Matrix: Water
Analysis Batch: 338842

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	0.60	U	10.0	10.9	J3	mg/L		109	73 - 120	21	8

Lab Sample ID: MB 400-338925/6
Matrix: Water
Analysis Batch: 338925

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 09:06	1

Lab Sample ID: LCS 400-338925/7
Matrix: Water
Analysis Batch: 338925

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	31.6		mg/L		105	90 - 110

Lab Sample ID: MRL 400-338925/3
Matrix: Water
Analysis Batch: 338925

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	2.19		mg/L		110	50 - 150

Lab Sample ID: 400-132603-10 MS
Matrix: Water
Analysis Batch: 338925

Client Sample ID: EB-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	0.60	U	10.0	11.0		mg/L		110	73 - 120		

Lab Sample ID: 400-132603-10 MSD
Matrix: Water
Analysis Batch: 338925

Client Sample ID: EB-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	0.60	U	10.0	10.1	J3	mg/L		101	73 - 120	9	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-339638/3
Matrix: Water
Analysis Batch: 339638

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			01/24/17 14:48	1

Lab Sample ID: LCS 400-339638/4
Matrix: Water
Analysis Batch: 339638

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	4.22		mg/L		106	90 - 110		

Lab Sample ID: 400-132603-1 MS
Matrix: Water
Analysis Batch: 339638

Client Sample ID: MW-101
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	1.06		mg/L		106	75 - 125		

Lab Sample ID: 400-132603-1 MSD
Matrix: Water
Analysis Batch: 339638

Client Sample ID: MW-101
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: 400-132603-8 DU
Matrix: Water
Analysis Batch: 339638

Client Sample ID: MW-110
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 400-338840/8
Matrix: Water
Analysis Batch: 338840

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			01/17/17 13:33	1

Lab Sample ID: LCS 400-338840/9
Matrix: Water
Analysis Batch: 338840

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 400-338840/5
Matrix: Water
Analysis Batch: 338840

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	4.49	I	mg/L		90	50 - 150

Lab Sample ID: 400-132574-A-10 MS
Matrix: Water
Analysis Batch: 338840

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	1.4	U	10.0	11.1		mg/L		111	77 - 128

Lab Sample ID: 400-132574-A-10 MSD
Matrix: Water
Analysis Batch: 338840

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	1.4	U	10.0	10.1	J3	mg/L		101	77 - 128	9	5

Lab Sample ID: MB 400-338923/6
Matrix: Water
Analysis Batch: 338923

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			01/18/17 08:41	1

Lab Sample ID: LCS 400-338923/7
Matrix: Water
Analysis Batch: 338923

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 400-338923/3
Matrix: Water
Analysis Batch: 338923

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	4.40	I	mg/L		88	50 - 150

QC Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Lab Sample ID: 400-132603-10 MS
Matrix: Water
Analysis Batch: 338923

Client Sample ID: EB-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	10.1		mg/L		101	77 - 128		

Lab Sample ID: 400-132603-10 MSD
Matrix: Water
Analysis Batch: 338923

Client Sample ID: EB-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	1.4	U	10.0	10.1		mg/L		101	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: Rick Hagendorfer / Colton Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	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 - 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-101	1-11-17	1002	G	Water			X	X	X	X	3	
MW-102	1-12-17	1606	G	Water			X	X	X	X	3	
MW-103	1-12-17	1438	G	Water			X	X	X	X	3	
MW-104	1-11-17	1548	G	Water			X	X	X	X	3	
MW-105	1-11-17	1402	G	Water			X	X	X	X	3	
MW-106	1-11-17	1153	G	Water			X	X	X	X	3	
MW-109	1-12-17	1254	G	Water			X	X	X	X	3	
MW-110	1-12-17	1130	G	Water			X	X	X	X	3	
DUP-03	1-11-17	1302	G				X	X	X		3	
EB-02	1-12-17	1355	G				X	X	X		3	
EB-02	1-12-17	1540	G				X	X	X	X NaOH	3	

400-132603 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
1		1/12/17 1747			1/12/17 1747	TAPen
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 2.7°C, 0.4°C, 1.5°C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132603-1
SDG Number: Landfill 1

Login Number: 132603
List Number: 1
Creator: Hughes, Nicholas T

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	0.4°C, 1.5°C, 2.7°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-1
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132603-2
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
2/16/2017 5:24:03 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-132603-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132603-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-288556: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-101 (400-132603-1), MW-102 (400-132603-2), MW-103 (400-132603-3), MW-104 (400-132603-4), MW-105 (400-132603-5), MW-106 (400-132603-6), MW-109 (400-132603-7), MW-110 (400-132603-8), DUP-03 (400-132603-9), EB-02 (400-132603-10) and FB-02 (400-132603-11). 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 160-288556: The following samples were prepared at a reduced aliquot due to limited volume: MW-101 (400-132603-1), MW-102 (400-132603-2), MW-103 (400-132603-3), MW-104 (400-132603-4), MW-105 (400-132603-5), MW-106 (400-132603-6), MW-109 (400-132603-7), MW-110 (400-132603-8), DUP-03 (400-132603-9), EB-02 (400-132603-10) and FB-02 (400-132603-11).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-288552: The following samples were prepared at a reduced aliquot due to limited volume: MW-101 (400-132603-1), MW-102 (400-132603-2), MW-103 (400-132603-3), MW-104 (400-132603-4), MW-105 (400-132603-5), MW-106 (400-132603-6), MW-109 (400-132603-7), MW-110 (400-132603-8), DUP-03 (400-132603-9), EB-02 (400-132603-10) and FB-02 (400-132603-11).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-288552: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-101 (400-132603-1), MW-102 (400-132603-2), MW-103 (400-132603-3), MW-104 (400-132603-4), MW-105 (400-132603-5), MW-106 (400-132603-6), MW-109 (400-132603-7), MW-110 (400-132603-8), DUP-03 (400-132603-9), EB-02 (400-132603-10) and FB-02 (400-132603-11). 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 Plant Crist

TestAmerica Job ID: 400-132603-2
SDG: Landfill 1

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-2
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132603-1	MW-101	Water	01/11/17 10:02	01/12/17 17:47
400-132603-2	MW-102	Water	01/12/17 16:00	01/12/17 17:47
400-132603-3	MW-103	Water	01/12/17 14:38	01/12/17 17:47
400-132603-4	MW-104	Water	01/11/17 15:48	01/12/17 17:47
400-132603-5	MW-105	Water	01/11/17 14:02	01/12/17 17:47
400-132603-6	MW-106	Water	01/11/17 11:53	01/12/17 17:47
400-132603-7	MW-109	Water	01/12/17 12:54	01/12/17 17:47
400-132603-8	MW-110	Water	01/12/17 11:30	01/12/17 17:47
400-132603-9	DUP-03	Water	01/11/17 13:02	01/12/17 17:47
400-132603-10	EB-02	Water	01/12/17 13:55	01/12/17 17:47
400-132603-11	FB-02	Water	01/12/17 15:40	01/12/17 17:47

Client Sample ID: MW-101

Date Collected: 01/11/17 10:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-1

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	0.509		0.214	0.218	1.00	0.233	pCi/L	01/20/17 12:15	02/13/17 08:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.596		0.344	0.349	1.00	0.519	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*85.2*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	1.11		0.405	0.411	5.00	0.519	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-102

Date Collected: 01/12/17 16:00
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-2

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	0.558		0.220	0.225	1.00	0.229	pCi/L	01/20/17 12:15	02/13/17 08:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.9*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.927		0.357	0.367	1.00	0.492	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*89.0*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	1.48		0.419	0.430	5.00	0.492	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-103

Date Collected: 01/12/17 14:38
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-3

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	2.60		0.383	0.449	1.00	0.214	pCi/L	01/20/17 12:15	02/15/17 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.8*		*40 - 110*	*01/20/17 12:15*	*02/15/17 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.27		0.610	0.779	1.00	0.496	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.8*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*91.6*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	7.87		0.720	0.899	5.00	0.496	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-104

Date Collected: 01/11/17 15:48
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-4

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	4.00		0.479	0.599	1.00	0.208	pCi/L	01/20/17 12:15	02/15/17 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*01/20/17 12:15*	*02/15/17 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	20.9		1.18	2.26	1.00	0.577	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*84.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	24.9		1.28	2.34	5.00	0.577	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-105

Date Collected: 01/11/17 14:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-5

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	1.27		0.289	0.311	1.00	0.234	pCi/L	01/20/17 12:15	02/15/17 11:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*01/20/17 12:15*	*02/15/17 11:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.35		0.586	0.662	1.00	0.654	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*84.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	4.62		0.653	0.731	5.00	0.654	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-106

Date Collected: 01/11/17 11:53
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-6

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	0.311		0.182	0.184	1.00	0.234	pCi/L	01/20/17 12:15	02/13/17 08:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.612		0.379	0.383	1.00	0.582	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*85.6*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	0.924		0.420	0.425	5.00	0.582	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-109

Date Collected: 01/12/17 12:54
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-7

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	0.858		0.251	0.262	1.00	0.203	pCi/L	01/20/17 12:15	02/13/17 08:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.948		0.370	0.380	1.00	0.517	pCi/L	01/20/17 12:45	02/09/17 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*1*
Y Carrier	*89.0*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*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	1.81		0.447	0.462	5.00	0.517	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-110

Date Collected: 01/12/17 11:30
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-8

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	3.13		0.415	0.501	1.00	0.172	pCi/L	01/20/17 12:15	02/15/17 13:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*01/20/17 12:15*	*02/15/17 13:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.91		0.682	0.872	1.00	0.550	pCi/L	01/20/17 12:45	02/09/17 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*1*
Y Carrier	*84.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*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	9.04		0.798	1.01	5.00	0.550	pCi/L		02/15/17 19:01	1

Client Sample ID: DUP-03

Date Collected: 01/11/17 13:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-9

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	1.53		0.303	0.333	1.00	0.189	pCi/L	01/20/17 12:15	02/15/17 13:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*01/20/17 12:15*	*02/15/17 13:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.99		0.484	0.518	1.00	0.598	pCi/L	01/20/17 12:45	02/09/17 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*1*
Y Carrier	*82.6*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*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	3.53		0.571	0.616	5.00	0.598	pCi/L		02/15/17 19:01	1

Client Sample ID: EB-02

Date Collected: 01/12/17 13:55
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-10

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	0.0693	U	0.128	0.128	1.00	0.228	pCi/L	01/20/17 12:15	02/13/17 08:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.1*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.102	U	0.333	0.334	1.00	0.577	pCi/L	01/20/17 12:45	02/09/17 11:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:56*	*1*
Y Carrier	*88.2*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:56*	*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	0.171	U	0.357	0.357	5.00	0.577	pCi/L		02/15/17 19:01	1

Client Sample ID: FB-02

Date Collected: 01/12/17 15:40
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-11

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	0.744		0.269	0.277	1.00	0.260	pCi/L	01/20/17 12:15	02/13/17 08:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.8*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:36*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.00		0.519	0.588	1.00	0.523	pCi/L	01/20/17 12:45	02/09/17 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.8*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*1*
Y Carrier	*83.4*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:57*	*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	3.75		0.585	0.650	5.00	0.523	pCi/L		02/15/17 19:01	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-132603-2
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 01/11/17 10:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 08:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-102
Date Collected: 01/12/17 16:00
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 08:37	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-103
Date Collected: 01/12/17 14:38
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 11:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-104
Date Collected: 01/11/17 15:48
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 11:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-2
SDG: Landfill 1

Client Sample ID: MW-105
Date Collected: 01/11/17 14:02
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 11:22	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-106
Date Collected: 01/11/17 11:53
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292018	02/13/17 08:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-109
Date Collected: 01/12/17 12:54
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292018	02/13/17 08:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-110
Date Collected: 01/12/17 11:30
Date Received: 01/12/17 17:47

Lab Sample ID: 400-132603-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: DUP-03

Lab Sample ID: 400-132603-9

Date Collected: 01/11/17 13:02

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: EB-02

Lab Sample ID: 400-132603-10

Date Collected: 01/12/17 13:55

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 08:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: FB-02

Lab Sample ID: 400-132603-11

Date Collected: 01/12/17 15:40

Matrix: Water

Date Received: 01/12/17 17:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 08:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 288552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	PrecSep-21	
400-132603-2	MW-102	Total/NA	Water	PrecSep-21	
400-132603-3	MW-103	Total/NA	Water	PrecSep-21	
400-132603-4	MW-104	Total/NA	Water	PrecSep-21	
400-132603-5	MW-105	Total/NA	Water	PrecSep-21	
400-132603-6	MW-106	Total/NA	Water	PrecSep-21	
400-132603-7	MW-109	Total/NA	Water	PrecSep-21	
400-132603-8	MW-110	Total/NA	Water	PrecSep-21	
400-132603-9	DUP-03	Total/NA	Water	PrecSep-21	
400-132603-10	EB-02	Total/NA	Water	PrecSep-21	
400-132603-11	FB-02	Total/NA	Water	PrecSep-21	
MB 160-288552/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-288552/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-288552/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 288556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132603-1	MW-101	Total/NA	Water	PrecSep_0	
400-132603-2	MW-102	Total/NA	Water	PrecSep_0	
400-132603-3	MW-103	Total/NA	Water	PrecSep_0	
400-132603-4	MW-104	Total/NA	Water	PrecSep_0	
400-132603-5	MW-105	Total/NA	Water	PrecSep_0	
400-132603-6	MW-106	Total/NA	Water	PrecSep_0	
400-132603-7	MW-109	Total/NA	Water	PrecSep_0	
400-132603-8	MW-110	Total/NA	Water	PrecSep_0	
400-132603-9	DUP-03	Total/NA	Water	PrecSep_0	
400-132603-10	EB-02	Total/NA	Water	PrecSep_0	
400-132603-11	FB-02	Total/NA	Water	PrecSep_0	
MB 160-288556/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-288556/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-288556/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-288552/1-A
Matrix: Water
Analysis Batch: 292018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288552

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03292	U	0.104	0.104	1.00	0.240	pCi/L	01/20/17 12:15	02/13/17 11:36	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:15*	*02/13/17 11:36*	*1*

Lab Sample ID: LCS 160-288552/2-A
Matrix: Water
Analysis Batch: 292648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288552

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			8.01	9.500		1.11	1.00	0.182	pCi/L	119	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.2*		*40 - 110*

Lab Sample ID: LCSD 160-288552/3-A
Matrix: Water
Analysis Batch: 292016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288552

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			8.01	10.72		1.27	1.00	0.193	pCi/L	134	68 - 137	0.51	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-288556/1-A
Matrix: Water
Analysis Batch: 291708

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288556

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2407	U	0.321	0.321	1.00	0.534	pCi/L	01/20/17 12:45	02/09/17 11:56	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:56*	*1*
Y Carrier	*87.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:56*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-288556/2-A
Matrix: Water
Analysis Batch: 291708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288556

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			18.5	23.68		2.51	1.00	0.506	pCi/L	128	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.2*		*40 - 110*
Y Carrier	*88.6*		*40 - 110*

Lab Sample ID: LCSD 160-288556/3-A
Matrix: Water
Analysis Batch: 291708

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288556

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			18.5	21.58		2.27	1.00	0.442	pCi/L	117	56 - 140	0.44	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.6*		*40 - 110*
Y Carrier	*87.5*		*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 / colton Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 1	SSOW#:			

Analysis Requested

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-101	1-11-17	1002	G	Water			X	X	X	X	3	
MW-102	1-12-17	1606	G	Water			X	X	X	X	3	
MW-103	1-12-17	1438	G	Water			X	X	X	X	3	
MW-104	1-11-17	1548	G	Water			X	X	X	X	3	
MW-105	1-11-17	1402	G	Water			X	X	X	X	3	
MW-106	1-11-17	1153	G	Water			X	X	X	X	3	
MW-109	1-12-17	1254	G	Water			X	X	X	X	3	
MW-110	1-12-17	1130	G	Water			X	X	X	X	3	
DUP-03	1-11-17	1302	G				X	X	X		3	
EB-02	1-12-17	1355	G				X	X	X		3	
EB-02	1-12-17	1540	G				X	X	X	X-DOH	3	

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:

400-132603 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
1		1/12/17 1747			1/12/17 1747	TAPen
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 2.7°C, 0.4°C, 1.5°C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132603-2
SDG Number: Landfill 1

Login Number: 132603
List Number: 1
Creator: Hughes, Nicholas T

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	0.4°C, 1.5°C, 2.7°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-2
SDG: Landfill 1

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132603-2
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132607-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
2/16/2017 5:24:30 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 21
Chronicle 22
QC Association 27
QC Sample Results 31
Chain of Custody 38
Receipt Checklists 39
Certification Summary 40

Job ID: 400-132607-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132607-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-132607-2), MW-201 (400-132607-3), MW-204 (400-132607-6), MW-206 (400-132607-8) and DUP-04 (400-132607-9). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MSD) recoveries for analytical batch 338925 were outside control limits. Sample matrix interference are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-132607-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00068	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	9.1		0.50	0.21	mg/L	50		6020	Total Recoverable
Cobalt	0.00056	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00041	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0040		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00012	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	220		2.5	1.3	mg/L	50		6020	Total Recoverable
Mercury	0.0012		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	470		40	12	mg/L	20		SM 4500 Cl- E	Total/NA
Sulfate	130		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.04				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-132607-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0034		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.071		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	34		1.0	0.42	mg/L	100		6020	Total Recoverable
Cadmium	0.013		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0060		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0078		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.014		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00057		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	660		5.0	2.5	mg/L	100		6020	Total Recoverable
Mercury	0.0026		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	4400		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1500		60	18	mg/L	30		SM 4500 Cl- E	Total/NA
Fluoride	0.73		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	390		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.14				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-132607-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-132607-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.65		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00096	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.74				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-132607-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00064	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.87		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0026		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00067	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	55		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-132607-6

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	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00068	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	6.5		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium	78		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.020		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0026		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0050		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00035	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	790		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	71		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.28		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-132607-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	420		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.4				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-132607-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0047		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.045	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	14		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-132607-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0062		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.10		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	68		2.0	0.84	mg/L	200		6020	Total Recoverable
Cadmium	0.0031		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0044		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0086		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.017		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00076		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	1800		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.00064		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	12000		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3900		200	60	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	600		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.24				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-04 — Lab Sample ID: 400-132607-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0060		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	66		2.0	0.84	mg/L	200		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Client Sample ID: DUP-04 (Continued) — Lab Sample ID: 400-132607-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.0031		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Chromium	0.0016	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0043		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0087		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.017		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00081		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	1800		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.00059		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	11000		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3900		200	60	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	590		100	28	mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-03 — Lab Sample ID: 400-132607-10

No Detections.

Client Sample ID: FB-03 — Lab Sample ID: 400-132607-11

No Detections.

Client Sample ID: DUP-05 — Lab Sample ID: 400-132607-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00094	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00034	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

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

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 Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132607-2	MW-200	Water	01/12/17 13:35	01/13/17 11:10
400-132607-3	MW-201	Water	01/13/17 08:20	01/13/17 11:10
400-132607-4	MW-202	Water	01/13/17 09:38	01/13/17 11:10
400-132607-5	MW-203	Water	01/12/17 09:15	01/13/17 11:10
400-132607-6	MW-204	Water	01/12/17 11:35	01/13/17 11:10
400-132607-7	MW-205	Water	01/12/17 12:38	01/13/17 11:10
400-132607-8	MW-206	Water	01/12/17 14:33	01/13/17 11:10
400-132607-9	DUP-04	Water	01/12/17 13:33	01/13/17 11:10
400-132607-10	EB-03	Water	01/13/17 08:38	01/13/17 11:10
400-132607-11	FB-03	Water	01/13/17 07:30	01/13/17 11:10
400-132607-12	DUP-05	Water	01/13/17 10:00	01/13/17 11:10

Client Sample ID: MW-200

Date Collected: 01/12/17 13:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-2

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		01/16/17 08:30	01/16/17 15:23	5
Arsenic	**0.00068**	**I**	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:23	5
Barium	**0.036**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:23	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:23	5
Boron	**9.1**		0.50	0.21	mg/L		01/16/17 08:30	01/17/17 16:11	50
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:23	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:23	5
Cobalt	**0.00056**	**I**	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:23	5
Lead	**0.00041**	**I**	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:23	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:23	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:23	5
Selenium	**0.0040**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:23	5
Thallium	**0.00012**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:23	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		01/16/17 08:30	01/16/17 18:13	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.000070	mg/L		01/14/17 13:29	01/17/17 10:10	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1500**		5.0	3.4	mg/L			01/15/17 14:05	1
Chloride	**470**		40	12	mg/L			01/18/17 11:34	20
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 16:30	1
Sulfate	**130**		25	7.0	mg/L			01/18/17 15:02	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.04**				SU			01/12/17 13:35	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Client Sample ID: MW-201
Date Collected: 01/13/17 08:20
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-3
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		01/16/17 08:30	01/16/17 15:28	5
Arsenic	**0.0034**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:28	5
Barium	**0.071**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:28	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:28	5
Boron	**34**		1.0	0.42	mg/L		01/16/17 08:30	01/17/17 16:38	100
Cadmium	**0.013**		0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:28	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:28	5
Cobalt	**0.0060**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:28	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:28	5
Lithium	**0.0078**		0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:28	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:28	5
Selenium	**0.014**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:28	5
Thallium	**0.00057**		0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:28	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**660**		5.0	2.5	mg/L		01/16/17 08:30	01/16/17 18:04	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0026**		0.00020	0.000070	mg/L		01/14/17 13:29	01/17/17 10:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4400**		25	17	mg/L			01/16/17 15:17	1
Chloride	**1500**		60	18	mg/L			01/18/17 14:21	30
Fluoride	**0.73**		0.10	0.032	mg/L			01/26/17 16:33	1
Sulfate	**390**		100	28	mg/L			01/18/17 15:02	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.14**				SU			01/13/17 08:20	1

Client Sample ID: MW-202

Date Collected: 01/13/17 09:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-4

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		01/16/17 08:30	01/16/17 15:32	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:32	5
Barium	**0.017**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:32	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:32	5
Boron	**0.65**		0.050	0.021	mg/L		01/16/17 08:30	01/16/17 15:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:32	5
Calcium	**4.9**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:32	5
Cobalt	**0.00096**	**I**	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:32	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:32	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:32	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:32	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:32	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:32	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		01/14/17 13:29	01/17/17 10:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			01/16/17 15:17	1
Chloride	**13**		2.0	0.60	mg/L			01/18/17 13:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 16:35	1
Sulfate	**15**		5.0	1.4	mg/L			01/18/17 14:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.74**				SU			01/13/17 09:38	1

Client Sample ID: MW-203
Date Collected: 01/12/17 09:15
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-5
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		01/16/17 08:30	01/16/17 15:41	5
Arsenic	**0.00064**	**I**	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:41	5
Barium	**0.041**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:41	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:41	5
Boron	**0.87**		0.050	0.021	mg/L		01/16/17 08:30	01/16/17 15:41	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:41	5
Calcium	**16**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:41	5
Cobalt	**0.0026**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:41	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:41	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:41	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:41	5
Selenium	**0.00067**	**I**	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:41	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:41	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		01/14/17 13:29	01/17/17 10:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**120**		5.0	3.4	mg/L			01/15/17 14:05	1
Chloride	**12**		2.0	0.60	mg/L			01/18/17 13:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 16:46	1
Sulfate	**55**		10	2.8	mg/L			01/18/17 15:02	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.63**				SU			01/12/17 09:15	1

Client Sample ID: MW-204
Date Collected: 01/12/17 11:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-6
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		01/16/17 08:30	01/16/17 15:46	5
Arsenic	**0.0038**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:46	5
Barium	**0.025**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:46	5
Beryllium	**0.00068**	**I**	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:46	5
Boron	**6.5**		0.25	0.11	mg/L		01/16/17 08:30	01/17/17 16:46	25
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:46	5
Calcium	**78**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:46	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:46	5
Cobalt	**0.020**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:46	5
Lead	**0.0026**		0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:46	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:46	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:46	5
Selenium	**0.0050**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:46	5
Thallium	**0.00035**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:46	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		01/14/17 13:29	01/17/17 10:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**790**		5.0	3.4	mg/L			01/15/17 14:05	1
Chloride	**71**		4.0	1.2	mg/L			01/18/17 14:21	2
Fluoride	**0.28**		0.10	0.032	mg/L			01/26/17 16:53	1
Sulfate	**420**		100	28	mg/L			01/18/17 15:48	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.4**				SU			01/12/17 11:35	1

Client Sample ID: MW-205
Date Collected: 01/12/17 12:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-7
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		01/16/17 08:30	01/16/17 16:13	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 16:13	5
Barium	**0.0047**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 16:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:13	5
Boron	**0.045**	**I**	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 16:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:13	5
Calcium	**14**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 16:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 16:13	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 16:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 16:13	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 16:13	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 16:13	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 16:13	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 16:13	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		01/14/17 13:29	01/17/17 10:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**44**		5.0	3.4	mg/L			01/15/17 14:05	1
Chloride	**4.5**		2.0	0.60	mg/L			01/18/17 13:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 16:55	1
Sulfate	**15**		5.0	1.4	mg/L			01/18/17 14:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.71**				SU			01/12/17 12:38	1

Client Sample ID: MW-206

Date Collected: 01/12/17 14:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-8

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		01/16/17 08:30	01/16/17 16:17	5
Arsenic	**0.0062**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 16:17	5
Barium	**0.10**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 16:17	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:17	5
Boron	**68**		2.0	0.84	mg/L		01/16/17 08:30	01/17/17 16:55	200
Cadmium	**0.0031**		0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:17	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 16:17	5
Cobalt	**0.0044**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 16:17	5
Lead	**0.0086**		0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 16:17	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 16:17	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 16:17	5
Selenium	**0.017**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 16:17	5
Thallium	**0.00076**		0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 16:17	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**1800**		10	5.0	mg/L		01/16/17 08:30	01/16/17 16:49	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00064**		0.00020	0.000070	mg/L		01/14/17 13:29	01/17/17 10:18	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12000**		50	34	mg/L			01/15/17 14:05	1
Chloride	**3900**		200	60	mg/L			01/18/17 15:55	100
Fluoride	**0.040**	I	0.10	0.032	mg/L			01/26/17 17:08	1
Sulfate	**600**		100	28	mg/L			01/18/17 15:48	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.24**				SU			01/12/17 14:33	1

Client Sample ID: DUP-04

Date Collected: 01/12/17 13:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-9

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		01/16/17 08:30	01/16/17 16:22	5
Arsenic	**0.0060**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 16:22	5
Barium	**0.11**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 16:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:22	5
Boron	**66**		2.0	0.84	mg/L		01/16/17 08:30	01/17/17 17:00	200
Cadmium	**0.0031**		0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:22	5
Chromium	**0.0016**	**I**	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 16:22	5
Cobalt	**0.0043**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 16:22	5
Lead	**0.0087**		0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 16:22	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 16:22	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 16:22	5
Selenium	**0.017**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 16:22	5
Thallium	**0.00081**		0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 16:22	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**1800**		10	5.0	mg/L		01/16/17 08:30	01/16/17 17:07	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00059**		0.00020	0.000070	mg/L		01/14/17 13:29	01/17/17 11:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**11000**		50	34	mg/L			01/15/17 14:05	1
Chloride	**3900**		200	60	mg/L			01/18/17 15:55	100
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			01/26/17 17:11	1
Sulfate	**590**		100	28	mg/L			01/18/17 15:48	20

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Client Sample ID: EB-03
Date Collected: 01/13/17 08:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-10
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		01/16/17 08:30	01/16/17 16:53	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 16:53	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 16:53	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:53	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 17:09	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:53	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 16:53	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 16:53	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 16:53	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 16:53	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 16:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 16:53	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 16:53	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 16:53	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		01/14/17 13:29	01/17/17 12:06	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			01/16/17 15:17	1
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 13:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 17:13	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 14:19	1

Client Sample ID: FB-03
Date Collected: 01/13/17 07:30
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-11
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		01/16/17 08:30	01/16/17 16:58	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 16:58	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 16:58	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:58	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 17:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:58	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 16:58	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 16:58	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 16:58	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 16:58	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 16:58	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 16:58	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 16:58	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 16:58	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		01/14/17 13:29	01/17/17 11:46	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			01/16/17 15:17	1
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 13:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 17:16	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 14:19	1

Client Sample ID: DUP-05

Date Collected: 01/13/17 10:00
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-12

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		01/16/17 08:30	01/16/17 16:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 16:40	5
Barium	**0.017**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 16:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:40	5
Boron	**0.12**		0.050	0.021	mg/L		01/16/17 08:30	01/17/17 17:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 16:40	5
Calcium	**4.7**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 16:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 16:40	5
Cobalt	**0.00094**	**I**	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 16:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 16:40	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 16:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 16:40	5
Selenium	**0.00034**	**I**	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 16:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 16:40	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		01/14/17 13:29	01/17/17 11:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			01/16/17 15:17	1
Chloride	**13**		2.0	0.60	mg/L			01/18/17 13:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 17:19	1
Sulfate	**15**		5.0	1.4	mg/L			01/18/17 14:19	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-200

Date Collected: 01/12/17 13:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:23	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	50	338693	01/16/17 18:13	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		50	338854	01/17/17 16:11	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	338925	01/18/17 11:34	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:30	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	338987	01/18/17 15:02	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 13:35	BWS	TAL PEN

Client Sample ID: MW-201

Date Collected: 01/13/17 08:20
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:28	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	100	338693	01/16/17 18:04	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		100	338854	01/17/17 16:38	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338595	01/16/17 15:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		30	338981	01/18/17 14:21	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	338987	01/18/17 15:02	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/13/17 08:20	BWS	TAL PEN

Client Sample ID: MW-202

Date Collected: 01/13/17 09:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:32	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:13	JAP	TAL PEN

Client Sample ID: MW-202

Date Collected: 01/13/17 09:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	338595	01/16/17 15:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338981	01/18/17 13:42	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:35	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338987	01/18/17 14:27	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/13/17 09:38	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 01/12/17 09:15
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:41	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338981	01/18/17 13:42	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	338987	01/18/17 15:02	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 09:15	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 01/12/17 11:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:46	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	338854	01/17/17 16:46	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	338981	01/18/17 14:21	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	338987	01/18/17 15:48	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 11:35	BWS	TAL PEN

Client Sample ID: MW-205

Date Collected: 01/12/17 12:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 16:13	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 16:51	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338981	01/18/17 13:42	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338987	01/18/17 14:28	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 12:38	BWS	TAL PEN

Client Sample ID: MW-206

Date Collected: 01/12/17 14:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 16:17	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	338693	01/16/17 16:49	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		200	338854	01/17/17 16:55	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	338981	01/18/17 15:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 17:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	338987	01/18/17 15:48	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/12/17 14:33	BWS	TAL PEN

Client Sample ID: DUP-04

Date Collected: 01/12/17 13:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 16:22	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	200	338693	01/16/17 17:07	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		200	338854	01/17/17 17:00	DRE	TAL PEN

Client Sample ID: DUP-04

Date Collected: 01/12/17 13:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 11:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338524	01/15/17 14:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	338981	01/18/17 15:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 17:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	338987	01/18/17 15:48	BJB	TAL PEN

Client Sample ID: EB-03

Date Collected: 01/13/17 08:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 16:53	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 17:09	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 12:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338595	01/16/17 15:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338981	01/18/17 13:42	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 17:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338987	01/18/17 14:19	BJB	TAL PEN

Client Sample ID: FB-03

Date Collected: 01/13/17 07:30
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 16:58	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 17:13	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 11:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338595	01/16/17 15:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338981	01/18/17 13:42	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 17:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338987	01/18/17 14:19	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-05

Date Collected: 01/13/17 10:00
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 16:40	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 17:18	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 11:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338595	01/16/17 15:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338981	01/18/17 13:42	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 17:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338987	01/18/17 14:19	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 338434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total Recoverable	Water	3005A	
400-132607-2 - DL	MW-200	Total Recoverable	Water	3005A	
400-132607-3	MW-201	Total Recoverable	Water	3005A	
400-132607-3 - DL	MW-201	Total Recoverable	Water	3005A	
400-132607-4	MW-202	Total Recoverable	Water	3005A	
400-132607-5	MW-203	Total Recoverable	Water	3005A	
400-132607-6	MW-204	Total Recoverable	Water	3005A	
400-132607-7	MW-205	Total Recoverable	Water	3005A	
400-132607-8	MW-206	Total Recoverable	Water	3005A	
400-132607-8 - DL	MW-206	Total Recoverable	Water	3005A	
400-132607-9	DUP-04	Total Recoverable	Water	3005A	
400-132607-9 - DL	DUP-04	Total Recoverable	Water	3005A	
400-132607-10	EB-03	Total Recoverable	Water	3005A	
400-132607-11	FB-03	Total Recoverable	Water	3005A	
400-132607-12	DUP-05	Total Recoverable	Water	3005A	
MB 400-338434/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-338434/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132608-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-132608-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 338438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	7470A	
400-132607-3	MW-201	Total/NA	Water	7470A	
400-132607-4	MW-202	Total/NA	Water	7470A	
400-132607-5	MW-203	Total/NA	Water	7470A	
400-132607-6	MW-204	Total/NA	Water	7470A	
400-132607-7	MW-205	Total/NA	Water	7470A	
400-132607-8	MW-206	Total/NA	Water	7470A	
400-132607-9	DUP-04	Total/NA	Water	7470A	
400-132607-10	EB-03	Total/NA	Water	7470A	
400-132607-11	FB-03	Total/NA	Water	7470A	
400-132607-12	DUP-05	Total/NA	Water	7470A	
MB 400-338438/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-338438/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-132608-B-4-C MS	Matrix Spike	Total/NA	Water	7470A	
400-132608-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 338693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total Recoverable	Water	6020	338434
400-132607-2 - DL	MW-200	Total Recoverable	Water	6020	338434
400-132607-3	MW-201	Total Recoverable	Water	6020	338434
400-132607-3 - DL	MW-201	Total Recoverable	Water	6020	338434
400-132607-4	MW-202	Total Recoverable	Water	6020	338434
400-132607-5	MW-203	Total Recoverable	Water	6020	338434
400-132607-6	MW-204	Total Recoverable	Water	6020	338434
400-132607-7	MW-205	Total Recoverable	Water	6020	338434
400-132607-8	MW-206	Total Recoverable	Water	6020	338434
400-132607-8 - DL	MW-206	Total Recoverable	Water	6020	338434
400-132607-9	DUP-04	Total Recoverable	Water	6020	338434

Metals (Continued)

Analysis Batch: 338693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-9 - DL	DUP-04	Total Recoverable	Water	6020	338434
400-132607-10	EB-03	Total Recoverable	Water	6020	338434
400-132607-11	FB-03	Total Recoverable	Water	6020	338434
400-132607-12	DUP-05	Total Recoverable	Water	6020	338434
MB 400-338434/1-A ^5	Method Blank	Total Recoverable	Water	6020	338434
LCS 400-338434/2-A	Lab Control Sample	Total Recoverable	Water	6020	338434
400-132608-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	338434
400-132608-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	338434

Analysis Batch: 338774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	7470A	338438
400-132607-3	MW-201	Total/NA	Water	7470A	338438
400-132607-4	MW-202	Total/NA	Water	7470A	338438
400-132607-5	MW-203	Total/NA	Water	7470A	338438
400-132607-6	MW-204	Total/NA	Water	7470A	338438
400-132607-7	MW-205	Total/NA	Water	7470A	338438
400-132607-8	MW-206	Total/NA	Water	7470A	338438
400-132607-9	DUP-04	Total/NA	Water	7470A	338438
400-132607-10	EB-03	Total/NA	Water	7470A	338438
400-132607-11	FB-03	Total/NA	Water	7470A	338438
400-132607-12	DUP-05	Total/NA	Water	7470A	338438
MB 400-338438/14-A	Method Blank	Total/NA	Water	7470A	338438
LCS 400-338438/15-A	Lab Control Sample	Total/NA	Water	7470A	338438
400-132608-B-4-C MS	Matrix Spike	Total/NA	Water	7470A	338438
400-132608-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	338438

Analysis Batch: 338854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total Recoverable	Water	6020	338434
400-132607-3	MW-201	Total Recoverable	Water	6020	338434
400-132607-6	MW-204	Total Recoverable	Water	6020	338434
400-132607-7	MW-205	Total Recoverable	Water	6020	338434
400-132607-8	MW-206	Total Recoverable	Water	6020	338434
400-132607-9	DUP-04	Total Recoverable	Water	6020	338434
400-132607-10	EB-03	Total Recoverable	Water	6020	338434
400-132607-11	FB-03	Total Recoverable	Water	6020	338434
400-132607-12	DUP-05	Total Recoverable	Water	6020	338434
MB 400-338434/1-A ^5	Method Blank	Total Recoverable	Water	6020	338434
LCS 400-338434/2-A	Lab Control Sample	Total Recoverable	Water	6020	338434

General Chemistry

Analysis Batch: 338524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	SM 2540C	
400-132607-5	MW-203	Total/NA	Water	SM 2540C	
400-132607-6	MW-204	Total/NA	Water	SM 2540C	
400-132607-7	MW-205	Total/NA	Water	SM 2540C	
400-132607-8	MW-206	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 338524 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-9	DUP-04	Total/NA	Water	SM 2540C	
MB 400-338524/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338524/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132607-6 DU	MW-204	Total/NA	Water	SM 2540C	

Analysis Batch: 338595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-3	MW-201	Total/NA	Water	SM 2540C	
400-132607-4	MW-202	Total/NA	Water	SM 2540C	
400-132607-10	EB-03	Total/NA	Water	SM 2540C	
400-132607-11	FB-03	Total/NA	Water	SM 2540C	
400-132607-12	DUP-05	Total/NA	Water	SM 2540C	
MB 400-338595/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338595/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132607-4 DU	MW-202	Total/NA	Water	SM 2540C	

Analysis Batch: 338925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	SM 4500 Cl- E	
MB 400-338925/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-338925/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-338925/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-132603-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-132603-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 338981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-3	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-132607-4	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-132607-5	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-132607-6	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-132607-7	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-132607-8	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-132607-9	DUP-04	Total/NA	Water	SM 4500 Cl- E	
400-132607-10	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-132607-11	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-132607-12	DUP-05	Total/NA	Water	SM 4500 Cl- E	
MB 400-338981/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-338981/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-338981/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-132607-4 MS	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-132607-4 MSD	MW-202	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 338987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-132607-3	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-132607-4	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-132607-5	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-132607-6	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-132607-7	MW-205	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 338987 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-8	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-132607-9	DUP-04	Total/NA	Water	SM 4500 SO4 E	
400-132607-10	EB-03	Total/NA	Water	SM 4500 SO4 E	
400-132607-11	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-132607-12	DUP-05	Total/NA	Water	SM 4500 SO4 E	
MB 400-338987/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-338987/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-338987/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-132607-4 MS	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-132607-4 MSD	MW-202	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 339971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	SM 4500 F C	
400-132607-3	MW-201	Total/NA	Water	SM 4500 F C	
400-132607-4	MW-202	Total/NA	Water	SM 4500 F C	
400-132607-5	MW-203	Total/NA	Water	SM 4500 F C	
400-132607-6	MW-204	Total/NA	Water	SM 4500 F C	
400-132607-7	MW-205	Total/NA	Water	SM 4500 F C	
400-132607-8	MW-206	Total/NA	Water	SM 4500 F C	
400-132607-9	DUP-04	Total/NA	Water	SM 4500 F C	
400-132607-10	EB-03	Total/NA	Water	SM 4500 F C	
400-132607-11	FB-03	Total/NA	Water	SM 4500 F C	
400-132607-12	DUP-05	Total/NA	Water	SM 4500 F C	
MB 400-339971/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-339971/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-132608-A-5 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-132608-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-132607-5 DU	MW-203	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 342179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	Field Sampling	
400-132607-3	MW-201	Total/NA	Water	Field Sampling	
400-132607-4	MW-202	Total/NA	Water	Field Sampling	
400-132607-5	MW-203	Total/NA	Water	Field Sampling	
400-132607-6	MW-204	Total/NA	Water	Field Sampling	
400-132607-7	MW-205	Total/NA	Water	Field Sampling	
400-132607-8	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-338434/1-A ^5
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/16/17 08:30	01/16/17 13:57	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 13:57	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 13:57	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 13:57	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/16/17 13:57	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 13:57	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 13:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 13:57	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 13:57	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 13:57	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 13:57	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 13:57	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 13:57	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 13:57	5

Lab Sample ID: MB 400-338434/1-A ^5
Matrix: Water
Analysis Batch: 338854

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/16/17 08:30	01/17/17 15:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/17/17 15:40	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/17/17 15:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/17/17 15:40	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 15:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/17/17 15:40	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/17/17 15:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/17/17 15:40	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/17/17 15:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/17/17 15:40	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/17/17 15:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/17/17 15:40	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/17/17 15:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/17/17 15:40	5

Lab Sample ID: LCS 400-338434/2-A
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0513		mg/L		103	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Boron	0.100	0.0998		mg/L		100	80 - 120
Cadmium	0.0500	0.0513		mg/L		103	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-338434/2-A
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0484		mg/L		97	80 - 120
Lead	0.0500	0.0487		mg/L		97	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Selenium	0.0500	0.0507		mg/L		101	80 - 120
Thallium	0.0100	0.0100		mg/L		100	80 - 120

Lab Sample ID: LCS 400-338434/2-A
Matrix: Water
Analysis Batch: 338854

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0503		mg/L		101	80 - 120
Arsenic	0.0500	0.0504		mg/L		101	80 - 120
Barium	0.0500	0.0493		mg/L		99	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Boron	0.100	0.0996		mg/L		100	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	5.00	4.64		mg/L		93	80 - 120
Chromium	0.0500	0.0478		mg/L		96	80 - 120
Cobalt	0.0500	0.0484		mg/L		97	80 - 120
Lead	0.0500	0.0482		mg/L		96	80 - 120
Lithium	0.0500	0.0545		mg/L		109	80 - 120
Molybdenum	0.100	0.0993		mg/L		99	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.00999		mg/L		100	80 - 120

Lab Sample ID: 400-132608-B-1-B MS ^5
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0533		mg/L		107	75 - 125
Arsenic	0.00046	U	0.0500	0.0515		mg/L		103	75 - 125
Barium	0.011		0.0500	0.0602		mg/L		98	75 - 125
Beryllium	0.00034	U	0.0500	0.0521		mg/L		104	75 - 125
Boron	0.027	I	0.100	0.140		mg/L		113	75 - 125
Cadmium	0.00034	U	0.0500	0.0507		mg/L		101	75 - 125
Calcium	0.51		5.00	5.39		mg/L		98	75 - 125
Chromium	0.0011	U	0.0500	0.0503		mg/L		101	75 - 125
Cobalt	0.00040	U	0.0500	0.0497		mg/L		99	75 - 125
Lead	0.00035	U	0.0500	0.0487		mg/L		97	75 - 125
Lithium	0.0032	U	0.0500	0.0493		mg/L		99	75 - 125
Molybdenum	0.00085	U	0.100	0.100		mg/L		100	75 - 125
Selenium	0.00024	U	0.0500	0.0514		mg/L		103	75 - 125
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-132608-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 338434

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	0.0509		mg/L		102	75 - 125	5	20
Arsenic	0.00046	U	0.0500	0.0518		mg/L		104	75 - 125	1	20
Barium	0.011		0.0500	0.0594		mg/L		97	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0525		mg/L		105	75 - 125	1	20
Boron	0.027	I	0.100	0.132		mg/L		105	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0518		mg/L		104	75 - 125	2	20
Calcium	0.51		5.00	5.41		mg/L		98	75 - 125	0	20
Chromium	0.0011	U	0.0500	0.0511		mg/L		102	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0498		mg/L		100	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0491		mg/L		98	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0514		mg/L		103	75 - 125	4	20
Molybdenum	0.00085	U	0.100	0.100		mg/L		100	75 - 125	0	20
Selenium	0.00024	U	0.0500	0.0507		mg/L		101	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.00998		mg/L		100	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-338438/14-A
Matrix: Water
Analysis Batch: 338774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 338438

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		01/14/17 13:29	01/17/17 09:40	1

Lab Sample ID: LCS 400-338438/15-A
Matrix: Water
Analysis Batch: 338774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 338438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00112		mg/L		111	80 - 120

Lab Sample ID: 400-132608-B-4-C MS
Matrix: Water
Analysis Batch: 338774

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 338438

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00219		mg/L		109	80 - 120

Lab Sample ID: 400-132608-B-4-D MSD
Matrix: Water
Analysis Batch: 338774

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 338438

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	0.00223		mg/L		111	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-338524/1
Matrix: Water
Analysis Batch: 338524

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			01/15/17 14:05	1

Lab Sample ID: LCS 400-338524/2
Matrix: Water
Analysis Batch: 338524

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	242		mg/L		83	78 - 122

Lab Sample ID: 400-132607-6 DU
Matrix: Water
Analysis Batch: 338524

Client Sample ID: MW-204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	790		794		mg/L		0	5

Lab Sample ID: MB 400-338595/1
Matrix: Water
Analysis Batch: 338595

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			01/16/17 15:17	1

Lab Sample ID: LCS 400-338595/2
Matrix: Water
Analysis Batch: 338595

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	286		mg/L		98	78 - 122

Lab Sample ID: 400-132607-4 DU
Matrix: Water
Analysis Batch: 338595

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	20		20.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-338925/6
Matrix: Water
Analysis Batch: 338925

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 09:06	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 400-338925/7
Matrix: Water
Analysis Batch: 338925

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	31.6		mg/L		105	90 - 110

Lab Sample ID: MRL 400-338925/3
Matrix: Water
Analysis Batch: 338925

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	2.19		mg/L		110	50 - 150

Lab Sample ID: 400-132603-A-10 MS
Matrix: Water
Analysis Batch: 338925

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	0.60	U	10.0	11.0		mg/L		110	73 - 120

Lab Sample ID: 400-132603-A-10 MSD
Matrix: Water
Analysis Batch: 338925

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	0.60	U	10.0	10.1	J3	mg/L		101	73 - 120	9	8

Lab Sample ID: MB 400-338981/6
Matrix: Water
Analysis Batch: 338981

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 12:30	1

Lab Sample ID: LCS 400-338981/7
Matrix: Water
Analysis Batch: 338981

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 400-338981/3
Matrix: Water
Analysis Batch: 338981

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	1.82	I	mg/L		91	50 - 150

Lab Sample ID: 400-132607-4 MS
Matrix: Water
Analysis Batch: 338981

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13		10.0	22.1		mg/L		93	73 - 120

Lab Sample ID: 400-132607-4 MSD — **Client Sample ID: MW-202**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	13		10.0	23.5		mg/L		107	73 - 120	6	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-339971/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 339971

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 15:52	1

Lab Sample ID: LCS 400-339971/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 339971

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.22		mg/L		106	90 - 110

Lab Sample ID: 400-132608-A-5 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 339971

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	I	1.00	1.12		mg/L		108	75 - 125

Lab Sample ID: 400-132608-A-5 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 339971

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	1.10		mg/L		106	75 - 125	2	4

Lab Sample ID: 400-132607-5 DU — **Client Sample ID: MW-203**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 339971

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 400-338987/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338987

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 12:24	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-338987/7
Matrix: Water
Analysis Batch: 338987

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	15.7		mg/L		105	90 - 110

Lab Sample ID: MRL 400-338987/3
Matrix: Water
Analysis Batch: 338987

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	4.41	I	mg/L		88	50 - 150

Lab Sample ID: 400-132607-4 MS
Matrix: Water
Analysis Batch: 338987

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15		10.0	23.6		mg/L		83	77 - 128

Lab Sample ID: 400-132607-4 MSD
Matrix: Water
Analysis Batch: 338987

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	15		10.0	23.2		mg/L		79	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: Brett Surles	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: 1
Company: Gulf Power Company				Job #:
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			
Email: krmitche@southernco.com	WO #:			Other:
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	SSOW#:			

400-132607 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, 4600_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Ti, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-200	1/12/17	1335	G	Water			X	X	X	X		
MW-201	1/13/17	0820	G	Water								
MW-202	1/13/17	0938	G	Water								
MW-203	1/12/17	0915	G	Water								
MW-204	1/12/17	1135	G	Water								
MW-205	1/12/17	1238	G	Water								
MW-206	1/12/17	1433	G	Water								
~~DUP-04~~ DUP-04	1/12/17	1333	G	W								
EB-03	1/13/17	0838	G	W								
FB-03	1/13/17	0730	G	W			X	X	X	X		
DUP-05	1/13/17	1000	G	W			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
		1/13/17 1110	RDH		1-13-17 1110	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.3, 5.5, 3.9°C IR-6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132607-1
SDG Number: Gypsum Storage Area

Login Number: 132607
List Number: 1
Creator: Franklin, Justin H

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	5.3°C, 5.5°C, 3.9°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-1
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132607-2
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
2/16/2017 5:27:11 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-132607-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132607-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-288550: The following samples were prepared at a reduced aliquot due to limited volume: MW-200 (400-132607-2), MW-201 (400-132607-3), MW-202 (400-132607-4), MW-203 (400-132607-5), MW-204 (400-132607-6), MW-205 (400-132607-7), MW-206 (400-132607-8), DUP-04 (400-132607-9), EB-03 (400-132607-10), FB-03 (400-132607-11) and DUP-05 (400-132607-12).

Method(s) PrecSep_0: Radium-228Prep Batch 160-288550: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-200 (400-132607-2), MW-201 (400-132607-3), MW-202 (400-132607-4), MW-203 (400-132607-5), MW-204 (400-132607-6), MW-205 (400-132607-7), MW-206 (400-132607-8), DUP-04 (400-132607-9), EB-03 (400-132607-10), FB-03 (400-132607-11) and DUP-05 (400-132607-12). 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 160-288547: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-200 (400-132607-2), MW-201 (400-132607-3), MW-202 (400-132607-4), MW-203 (400-132607-5), MW-204 (400-132607-6), MW-205 (400-132607-7), MW-206 (400-132607-8), DUP-04 (400-132607-9), EB-03 (400-132607-10), FB-03 (400-132607-11) and DUP-05 (400-132607-12). 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 160-288547: The following samples were prepared at a reduced aliquot due to limited volume: MW-200 (400-132607-2), MW-201 (400-132607-3), MW-202 (400-132607-4), MW-203 (400-132607-5), MW-204 (400-132607-6), MW-205 (400-132607-7), MW-206 (400-132607-8), DUP-04 (400-132607-9), EB-03 (400-132607-10), FB-03 (400-132607-11) and DUP-05 (400-132607-12).

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132607-2	MW-200	Water	01/12/17 13:35	01/13/17 11:10
400-132607-3	MW-201	Water	01/13/17 08:20	01/13/17 11:10
400-132607-4	MW-202	Water	01/13/17 09:38	01/13/17 11:10
400-132607-5	MW-203	Water	01/12/17 09:15	01/13/17 11:10
400-132607-6	MW-204	Water	01/12/17 11:35	01/13/17 11:10
400-132607-7	MW-205	Water	01/12/17 12:38	01/13/17 11:10
400-132607-8	MW-206	Water	01/12/17 14:33	01/13/17 11:10
400-132607-9	DUP-04	Water	01/12/17 13:33	01/13/17 11:10
400-132607-10	EB-03	Water	01/13/17 08:38	01/13/17 11:10
400-132607-11	FB-03	Water	01/13/17 07:30	01/13/17 11:10
400-132607-12	DUP-05	Water	01/13/17 10:00	01/13/17 11:10

Client Sample ID: MW-200
Date Collected: 01/12/17 13:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-2
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	5.18		0.524	0.701	1.00	0.175	pCi/L	01/20/17 11:52	02/15/17 13:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*01/20/17 11:52*	*02/15/17 13:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.99		0.669	0.867	1.00	0.527	pCi/L	01/20/17 12:12	02/09/17 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:01*	*1*
Y Carrier	*86.0*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:01*	*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	11.2		0.850	1.11	5.00	0.527	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-201

Date Collected: 01/13/17 08:20
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-3

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	7.43		0.638	0.924	1.00	0.219	pCi/L	01/20/17 11:52	02/15/17 13:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*01/20/17 11:52*	*02/15/17 13:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	15.4		1.03	1.75	1.00	0.556	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*85.6*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	22.8		1.21	1.98	5.00	0.556	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-202

Date Collected: 01/13/17 09:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-4

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	0.944		0.273	0.286	1.00	0.219	pCi/L	01/20/17 11:52	02/13/17 15:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*01/20/17 11:52*	*02/13/17 15:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.882		0.394	0.403	1.00	0.560	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*86.0*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	1.83		0.480	0.494	5.00	0.560	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-203

Date Collected: 01/12/17 09:15
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-5

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	2.11		0.357	0.404	1.00	0.210	pCi/L	01/20/17 11:52	02/15/17 13:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*01/20/17 11:52*	*02/15/17 13:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.46		0.542	0.628	1.00	0.509	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*86.7*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	5.56		0.649	0.747	5.00	0.509	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-204
Date Collected: 01/12/17 11:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-6
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	1.47		0.325	0.351	1.00	0.259	pCi/L	01/20/17 11:52	02/15/17 13:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.9*		*40 - 110*	*01/20/17 11:52*	*02/15/17 13:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	14.6		1.07	1.72	1.00	0.619	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*86.4*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	16.1		1.12	1.75	5.00	0.619	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-205

Date Collected: 01/12/17 12:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-7

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	0.137	U	0.134	0.135	1.00	0.207	pCi/L	01/20/17 11:52	02/13/17 17:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*01/20/17 11:52*	*02/13/17 17:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.387	U	0.341	0.343	1.00	0.547	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*85.6*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	0.523	U	0.367	0.369	5.00	0.547	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-206

Date Collected: 01/12/17 14:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-8

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	14.6		0.967	1.63	1.00	0.205	pCi/L	01/20/17 11:52	02/15/17 15:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.8*		*40 - 110*	*01/20/17 11:52*	*02/15/17 15:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	20.8		1.35	2.34	1.00	0.654	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*63.8*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*85.6*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	35.4		1.66	2.85	5.00	0.654	pCi/L		02/15/17 19:01	1

Client Sample ID: DUP-04
Date Collected: 01/12/17 13:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-9
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	14.2		1.07	1.67	1.00	0.273	pCi/L	01/20/17 11:52	02/15/17 15:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*52.4*		*40 - 110*	*01/20/17 11:52*	*02/15/17 15:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	21.6		1.50	2.49	1.00	0.756	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*52.4*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*84.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	35.8		1.84	3.00	5.00	0.756	pCi/L		02/15/17 19:01	1

Client Sample ID: EB-03

Date Collected: 01/13/17 08:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-10

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	0.162	U	0.154	0.154	1.00	0.237	pCi/L	01/20/17 11:52	02/13/17 21:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*01/20/17 11:52*	*02/13/17 21:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.355	0.356	1.00	0.597	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.3*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*81.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	0.388	U	0.387	0.388	5.00	0.597	pCi/L		02/15/17 19:01	1

Client Sample ID: FB-03
Date Collected: 01/13/17 07:30
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-11
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	-0.0381	U	0.0916	0.0916	1.00	0.216	pCi/L	01/20/17 11:52	02/13/17 21:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*01/20/17 11:52*	*02/13/17 21:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.299	0.299	1.00	0.499	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*81.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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	0.179	U	0.313	0.313	5.00	0.499	pCi/L		02/15/17 19:01	1

Client Sample ID: DUP-05
Date Collected: 01/13/17 10:00
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-12
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	**1.04**		0.272	0.287	1.00	0.218	pCi/L	01/20/17 11:52	02/15/17 15:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.1*		*40 - 110*	*01/20/17 11:52*	*02/15/17 15:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.279	U	0.337	0.338	1.00	0.558	pCi/L	01/20/17 12:12	02/09/17 12:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*70.1*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*1*
Y Carrier	*84.1*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:02*	*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**		0.433	0.444	5.00	0.558	pCi/L		02/15/17 19:01	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 01/12/17 13:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-201
Date Collected: 01/13/17 08:20
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:26	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-202
Date Collected: 01/13/17 09:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292017	02/13/17 15:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-203
Date Collected: 01/12/17 09:15
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-204
Date Collected: 01/12/17 11:35
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-205
Date Collected: 01/12/17 12:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 17:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-206
Date Collected: 01/12/17 14:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 15:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: DUP-04
Date Collected: 01/12/17 13:33
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 15:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

Client Sample ID: EB-03
Date Collected: 01/13/17 08:38
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 21:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: FB-03
Date Collected: 01/13/17 07:30
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292016	02/13/17 21:00	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: DUP-05
Date Collected: 01/13/17 10:00
Date Received: 01/13/17 11:10

Lab Sample ID: 400-132607-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288547	01/20/17 11:52	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 15:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288550	01/20/17 12:12	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 288547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	PrecSep-21	
400-132607-3	MW-201	Total/NA	Water	PrecSep-21	
400-132607-4	MW-202	Total/NA	Water	PrecSep-21	
400-132607-5	MW-203	Total/NA	Water	PrecSep-21	
400-132607-6	MW-204	Total/NA	Water	PrecSep-21	
400-132607-7	MW-205	Total/NA	Water	PrecSep-21	
400-132607-8	MW-206	Total/NA	Water	PrecSep-21	
400-132607-9	DUP-04	Total/NA	Water	PrecSep-21	
400-132607-10	EB-03	Total/NA	Water	PrecSep-21	
400-132607-11	FB-03	Total/NA	Water	PrecSep-21	
400-132607-12	DUP-05	Total/NA	Water	PrecSep-21	
MB 160-288547/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-288547/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-288547/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 288550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132607-2	MW-200	Total/NA	Water	PrecSep_0	
400-132607-3	MW-201	Total/NA	Water	PrecSep_0	
400-132607-4	MW-202	Total/NA	Water	PrecSep_0	
400-132607-5	MW-203	Total/NA	Water	PrecSep_0	
400-132607-6	MW-204	Total/NA	Water	PrecSep_0	
400-132607-7	MW-205	Total/NA	Water	PrecSep_0	
400-132607-8	MW-206	Total/NA	Water	PrecSep_0	
400-132607-9	DUP-04	Total/NA	Water	PrecSep_0	
400-132607-10	EB-03	Total/NA	Water	PrecSep_0	
400-132607-11	FB-03	Total/NA	Water	PrecSep_0	
400-132607-12	DUP-05	Total/NA	Water	PrecSep_0	
MB 160-288550/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-288550/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-288550/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-288547/1-A
Matrix: Water
Analysis Batch: 292018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288547

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06952	U	0.131	0.131	1.00	0.235	pCi/L	01/20/17 11:52	02/13/17 15:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*01/20/17 11:52*	*02/13/17 15:14*	*1*

Lab Sample ID: LCS 160-288547/2-A
Matrix: Water
Analysis Batch: 292648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288547

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			8.01	10.48		1.20	1.00	0.171	pCi/L	131	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*83.5*		*40 - 110*

Lab Sample ID: LCSD 160-288547/3-A
Matrix: Water
Analysis Batch: 292630

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288547

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			8.01	10.43		1.20	1.00	0.235	pCi/L	130	68 - 137	0.02	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*80.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-288550/1-A
Matrix: Water
Analysis Batch: 291733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288550

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1125	U	0.311	0.312	1.00	0.540	pCi/L	01/20/17 12:12	02/09/17 12:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:01*	*1*
Y Carrier	*87.9*		*40 - 110*	*01/20/17 12:12*	*02/09/17 12:01*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-288550/2-A
Matrix: Water
Analysis Batch: 291733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288550

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			18.5	23.03		2.45	1.00	0.535	pCi/L	125	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*83.5*		*40 - 110*
Y Carrier	*81.5*		*40 - 110*

Lab Sample ID: LCSD 160-288550/3-A
Matrix: Water
Analysis Batch: 291733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288550

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			18.5	21.58		2.30	1.00	0.479	pCi/L	117	56 - 140	0.30	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*80.6*		*40 - 110*
Y Carrier	*88.2*		*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 Surles	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: 1
Company: Gulf Power Company				Job #:
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			
Email: krmitche@southernco.com	WO #:			Other:
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	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, 4600_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Ti, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-200	1/12/17	1335	G	Water			X	X	X	X		
MW-201	1/13/17	0820	G	Water								
MW-202	1/13/17	0938	G	Water								
MW-203	1/12/17	0915	G	Water								
MW-204	1/12/17	1135	G	Water								
MW-205	1/12/17	1238	G	Water								
MW-206	1/12/17	1433	G	Water								
~~DUP-04~~ DUP-04	1/12/17	1333	G	W								
EB-03	1/13/17	0838	G	W								
FB-03	1/13/17	0730	G	W			X	X	X	X		
DUP-05	1/13/17	1000	G	W			X	X	X	X		

400-132607 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
	1/13/17 1110	RDH		1-13-17 1110	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.3, 5.5, 3.9°C IR-6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132607-2
SDG Number: Gypsum Storage Area

Login Number: 132607
List Number: 1
Creator: Franklin, Justin H

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	5.3°C, 5.5°C, 3.9°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132607-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132608-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
2/16/2017 5:24:51 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 17
Chronicle 18
QC Association 22
QC Sample Results 26
Chain of Custody 33
Receipt Checklists 34
Certification Summary 35

Job ID: 400-132608-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132608-1

Metals
Method(s) 6020: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-132608-2), MW-304 (400-132608-3), MW-308 (400-132608-5) and DUP-02 (400-132608-6). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MSD) recoveries for analytical batch 338925 were outside control limits. Sample matrix interference are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-132608-1

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
Boron	0.027	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.51		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.83				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-132608-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	4.2		0.25	0.11	mg/L	25		6020	Total Recoverable
Cadmium	0.00051	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	64		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.024		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0045		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00018	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Molybdenum - DL	2.1		0.075	0.0043	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	530		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	110		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.72				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-132608-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0051		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.9		0.25	0.11	mg/L	25		6020	Total Recoverable
Cobalt	0.077		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00041	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Molybdenum	0.0020	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0056		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00018	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-132608-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	150		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	1300		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	150		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	580		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.04				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-132608-4

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
Boron	0.072		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.58		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00042	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.96				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-132608-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.022		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	5.4		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium	61		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0058		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00033	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	510		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	45		2.0	0.60	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
Sulfate	240		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-132608-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	4.3		0.25	0.11	mg/L	25		6020	Total Recoverable
Cadmium	0.00043	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	65		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.023		0.0050	0.0032	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-02 (Continued) — Lab Sample ID: 400-132608-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.0044		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00016	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Molybdenum - DL	2.0		0.075	0.0043	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	550		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	110		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.16		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	170		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-132608-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.10		0.050	0.021	mg/L	5		6020	Total Recoverable
Molybdenum	0.0021	I	0.015	0.00085	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-01 — Lab Sample ID: 400-132608-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.7	I	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

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

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 Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132608-1	MW-300	Water	01/10/17 07:38	01/12/17 15:43
400-132608-2	MW-303	Water	01/10/17 08:47	01/12/17 15:43
400-132608-3	MW-304	Water	01/10/17 12:21	01/12/17 15:43
400-132608-4	MW-305	Water	01/10/17 13:23	01/12/17 15:43
400-132608-5	MW-308	Water	01/10/17 11:09	01/12/17 15:43
400-132608-6	DUP-02	Water	01/10/17 07:47	01/12/17 15:43
400-132608-7	EB-01	Water	01/10/17 13:35	01/12/17 15:43
400-132608-8	FB-01	Water	01/10/17 12:15	01/12/17 15:43

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 01/10/17 07:38
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-1

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		01/16/17 08:30	01/16/17 14:06	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 14:06	5
Barium	**0.011**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 14:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:06	5
Boron	**0.027**	**I**	0.050	0.021	mg/L		01/16/17 08:30	01/16/17 14:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:06	5
Calcium	**0.51**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 14:06	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 14:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 14:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 14:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 14:06	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 14:06	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 14:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 14:06	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		01/14/17 13:29	01/17/17 09:43	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**30**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**9.1**		2.0	0.60	mg/L			01/18/17 09:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:51	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 09:29	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.83**				SU			01/10/17 07:38	1

Client Sample ID: MW-303

Date Collected: 01/10/17 08:47
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-2

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		01/16/17 08:30	01/16/17 14:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 14:29	5
Barium	**0.027**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 14:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:29	5
Boron	**4.2**		0.25	0.11	mg/L		01/16/17 08:30	01/17/17 15:49	25
Cadmium	**0.00051**	**I**	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:29	5
Calcium	**64**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 14:29	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 14:29	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 14:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 14:29	5
Lithium	**0.024**		0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 14:29	5
Selenium	**0.0045**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 14:29	5
Thallium	**0.00018**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 14:29	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**2.1**		0.075	0.0043	mg/L		01/16/17 08:30	01/16/17 17:41	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		01/14/17 13:29	01/17/17 09:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**530**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**110**		10	3.0	mg/L			01/18/17 10:30	5
Fluoride	**0.15**		0.10	0.032	mg/L			01/24/17 15:54	1
Sulfate	**190**		50	14	mg/L			01/18/17 09:48	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.72**				SU			01/10/17 08:47	1

Client Sample ID: MW-304

Date Collected: 01/10/17 12:21
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-3

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		01/16/17 08:30	01/16/17 14:33	5
Arsenic	**0.0051**		0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 14:33	5
Barium	**0.041**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 14:33	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:33	5
Boron	**1.9**		0.25	0.11	mg/L		01/16/17 08:30	01/17/17 15:53	25
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:33	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 14:33	5
Cobalt	**0.077**		0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 14:33	5
Lead	**0.00041**	**I**	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 14:33	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 14:33	5
Molybdenum	**0.0020**	**I**	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 14:33	5
Selenium	**0.0056**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 14:33	5
Thallium	**0.00018**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 14:33	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**150**		1.3	0.63	mg/L		01/16/17 08:30	01/16/17 17:45	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		01/14/17 13:29	01/17/17 09:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**150**		10	3.0	mg/L			01/18/17 10:30	5
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:56	1
Sulfate	**580**		100	28	mg/L			01/18/17 11:28	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.04**				SU			01/10/17 12:21	1

Client Sample ID: MW-305

Date Collected: 01/10/17 13:23
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-4

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		01/16/17 08:30	01/16/17 14:38	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 14:38	5
Barium	**0.016**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 14:38	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:38	5
Boron	**0.072**		0.050	0.021	mg/L		01/16/17 08:30	01/16/17 14:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 14:38	5
Calcium	**0.58**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 14:38	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 14:38	5
Cobalt	**0.00042**	**I**	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 14:38	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 14:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 14:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 14:38	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 14:38	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 14:38	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		01/14/17 13:29	01/17/17 09:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**7.4**		2.0	0.60	mg/L			01/18/17 09:56	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/24/17 15:58	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 10:36	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.96**				SU			01/10/17 13:23	1

Client Sample ID: MW-308

Date Collected: 01/10/17 11:09
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-5

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		01/16/17 08:30	01/16/17 15:05	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:05	5
Barium	**0.022**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:05	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:05	5
Boron	**5.4**		0.25	0.11	mg/L		01/16/17 08:30	01/17/17 15:58	25
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:05	5
Calcium	**61**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:05	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:05	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:05	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:05	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:05	5
Selenium	**0.0058**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:05	5
Thallium	**0.00033**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:05	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		01/14/17 13:29	01/17/17 09:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**510**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**45**		2.0	0.60	mg/L			01/18/17 09:56	1
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			01/26/17 16:00	1
Sulfate	**240**		50	14	mg/L			01/18/17 11:28	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6**				SU			01/10/17 11:09	1

Client Sample ID: DUP-02

Date Collected: 01/10/17 07:47
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-6

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		01/16/17 08:30	01/16/17 15:10	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:10	5
Barium	**0.028**		0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:10	5
Boron	**4.3**		0.25	0.11	mg/L		01/16/17 08:30	01/17/17 16:02	25
Cadmium	**0.00043**	**I**	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:10	5
Calcium	**65**		0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:10	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:10	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:10	5
Lithium	**0.023**		0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:10	5
Selenium	**0.0044**		0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:10	5
Thallium	**0.00016**	**I**	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:10	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**2.0**		0.075	0.0043	mg/L		01/16/17 08:30	01/16/17 17:55	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		01/14/17 13:29	01/17/17 10:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**550**		5.0	3.4	mg/L			01/14/17 16:22	1
Chloride	**110**		10	3.0	mg/L			01/18/17 10:30	5
Fluoride	**0.16**		0.10	0.032	mg/L			01/26/17 16:06	1
Sulfate	**170**		25	7.0	mg/L			01/18/17 10:59	5

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Client Sample ID: EB-01
Date Collected: 01/10/17 13:35
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-7
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		01/16/17 08:30	01/16/17 15:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:14	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:14	5
Boron	**0.10**		0.050	0.021	mg/L		01/16/17 08:30	01/16/17 15:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:14	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:14	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:14	5
Molybdenum	**0.0021**	**I**	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:14	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:14	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		01/14/17 13:29	01/17/17 10:08	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			01/14/17 16:22	1
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 11:05	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 16:09	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 10:36	1

Client Sample ID: FB-01

Date Collected: 01/10/17 12:15
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-8

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		01/16/17 08:30	01/16/17 15:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 15:37	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 15:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:37	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 16:07	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 15:37	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 15:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 15:37	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 15:37	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 15:37	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 15:37	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 15:37	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 15:37	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 15:37	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		01/14/17 13:29	01/17/17 10:09	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			01/16/17 15:17	1
Chloride	**1.7**	**I**	2.0	0.60	mg/L			01/18/17 11:05	1
Fluoride	0.032	U	0.10	0.032	mg/L			01/26/17 16:11	1
Sulfate	1.4	U	5.0	1.4	mg/L			01/18/17 10:36	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-300

Lab Sample ID: 400-132608-1

Date Collected: 01/10/17 07:38

Matrix: Water

Date Received: 01/12/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 14:06	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 09:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:51	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 09:29	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/10/17 07:38	BWS	TAL PEN

Client Sample ID: MW-303

Lab Sample ID: 400-132608-2

Date Collected: 01/10/17 08:47

Matrix: Water

Date Received: 01/12/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 14:29	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	338693	01/16/17 17:41	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	338854	01/17/17 15:49	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 09:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	338925	01/18/17 10:30	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:54	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	338923	01/18/17 09:48	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/10/17 08:47	BWS	TAL PEN

Client Sample ID: MW-304

Lab Sample ID: 400-132608-3

Date Collected: 01/10/17 12:21

Matrix: Water

Date Received: 01/12/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 14:33	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	338693	01/16/17 17:45	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	338854	01/17/17 15:53	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 09:45	JAP	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Client Sample ID: MW-304

Date Collected: 01/10/17 12:21
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	338925	01/18/17 10:30	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:56	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	338923	01/18/17 11:28	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/10/17 12:21	BWS	TAL PEN

Client Sample ID: MW-305

Date Collected: 01/10/17 13:23
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 14:38	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 09:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:56	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339638	01/24/17 15:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 10:36	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/10/17 13:23	BWS	TAL PEN

Client Sample ID: MW-308

Date Collected: 01/10/17 11:09
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:05	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	338854	01/17/17 15:58	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 09:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 09:56	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	338923	01/18/17 11:28	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	342179	01/10/17 11:09	BWS	TAL PEN

Client Sample ID: DUP-02

Lab Sample ID: 400-132608-6

Date Collected: 01/10/17 07:47
Matrix: Water
Date Received: 01/12/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:10	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020	DL	25	338693	01/16/17 17:55	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		25	338854	01/17/17 16:02	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	338925	01/18/17 10:30	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	338923	01/18/17 10:59	BJB	TAL PEN

Client Sample ID: EB-01

Lab Sample ID: 400-132608-7

Date Collected: 01/10/17 13:35
Matrix: Water
Date Received: 01/12/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:14	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:08	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338504	01/14/17 16:22	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 11:05	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:09	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 10:36	BJB	TAL PEN

Client Sample ID: FB-01

Lab Sample ID: 400-132608-8

Date Collected: 01/10/17 12:15
Matrix: Water
Date Received: 01/12/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338693	01/16/17 15:37	DRE	TAL PEN
Total Recoverable	Prep	3005A			338434	01/16/17 08:30	RJB	TAL PEN
Total Recoverable	Analysis	6020		5	338854	01/17/17 16:07	DRE	TAL PEN
Total/NA	Prep	7470A			338438	01/14/17 13:29	JAP	TAL PEN
Total/NA	Analysis	7470A		1	338774	01/17/17 10:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	338595	01/16/17 15:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	338925	01/18/17 11:05	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	339971	01/26/17 16:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	338923	01/18/17 10:36	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 338434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total Recoverable	Water	3005A	
400-132608-2	MW-303	Total Recoverable	Water	3005A	
400-132608-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-132608-3	MW-304	Total Recoverable	Water	3005A	
400-132608-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-132608-4	MW-305	Total Recoverable	Water	3005A	
400-132608-5	MW-308	Total Recoverable	Water	3005A	
400-132608-6	DUP-02	Total Recoverable	Water	3005A	
400-132608-6 - DL	DUP-02	Total Recoverable	Water	3005A	
400-132608-7	EB-01	Total Recoverable	Water	3005A	
400-132608-8	FB-01	Total Recoverable	Water	3005A	
MB 400-338434/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-338434/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-132608-1 MS	MW-300	Total Recoverable	Water	3005A	
400-132608-1 MSD	MW-300	Total Recoverable	Water	3005A	

Prep Batch: 338438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	7470A	
400-132608-2	MW-303	Total/NA	Water	7470A	
400-132608-3	MW-304	Total/NA	Water	7470A	
400-132608-4	MW-305	Total/NA	Water	7470A	
400-132608-5	MW-308	Total/NA	Water	7470A	
400-132608-6	DUP-02	Total/NA	Water	7470A	
400-132608-7	EB-01	Total/NA	Water	7470A	
400-132608-8	FB-01	Total/NA	Water	7470A	
MB 400-338438/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-338438/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-132608-4 MS	MW-305	Total/NA	Water	7470A	
400-132608-4 MSD	MW-305	Total/NA	Water	7470A	

Analysis Batch: 338693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total Recoverable	Water	6020	338434
400-132608-2	MW-303	Total Recoverable	Water	6020	338434
400-132608-2 - DL	MW-303	Total Recoverable	Water	6020	338434
400-132608-3	MW-304	Total Recoverable	Water	6020	338434
400-132608-3 - DL	MW-304	Total Recoverable	Water	6020	338434
400-132608-4	MW-305	Total Recoverable	Water	6020	338434
400-132608-5	MW-308	Total Recoverable	Water	6020	338434
400-132608-6	DUP-02	Total Recoverable	Water	6020	338434
400-132608-6 - DL	DUP-02	Total Recoverable	Water	6020	338434
400-132608-7	EB-01	Total Recoverable	Water	6020	338434
400-132608-8	FB-01	Total Recoverable	Water	6020	338434
MB 400-338434/1-A ^5	Method Blank	Total Recoverable	Water	6020	338434
LCS 400-338434/2-A	Lab Control Sample	Total Recoverable	Water	6020	338434
400-132608-1 MS	MW-300	Total Recoverable	Water	6020	338434
400-132608-1 MSD	MW-300	Total Recoverable	Water	6020	338434

Metals (Continued)

Analysis Batch: 338774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	7470A	338438
400-132608-2	MW-303	Total/NA	Water	7470A	338438
400-132608-3	MW-304	Total/NA	Water	7470A	338438
400-132608-4	MW-305	Total/NA	Water	7470A	338438
400-132608-5	MW-308	Total/NA	Water	7470A	338438
400-132608-6	DUP-02	Total/NA	Water	7470A	338438
400-132608-7	EB-01	Total/NA	Water	7470A	338438
400-132608-8	FB-01	Total/NA	Water	7470A	338438
MB 400-338438/14-A	Method Blank	Total/NA	Water	7470A	338438
LCS 400-338438/15-A	Lab Control Sample	Total/NA	Water	7470A	338438
400-132608-4 MS	MW-305	Total/NA	Water	7470A	338438
400-132608-4 MSD	MW-305	Total/NA	Water	7470A	338438

Analysis Batch: 338854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-2	MW-303	Total Recoverable	Water	6020	338434
400-132608-3	MW-304	Total Recoverable	Water	6020	338434
400-132608-5	MW-308	Total Recoverable	Water	6020	338434
400-132608-6	DUP-02	Total Recoverable	Water	6020	338434
400-132608-8	FB-01	Total Recoverable	Water	6020	338434
MB 400-338434/1-A ^5	Method Blank	Total Recoverable	Water	6020	338434
LCS 400-338434/2-A	Lab Control Sample	Total Recoverable	Water	6020	338434

General Chemistry

Analysis Batch: 338504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	SM 2540C	
400-132608-2	MW-303	Total/NA	Water	SM 2540C	
400-132608-3	MW-304	Total/NA	Water	SM 2540C	
400-132608-4	MW-305	Total/NA	Water	SM 2540C	
400-132608-5	MW-308	Total/NA	Water	SM 2540C	
400-132608-6	DUP-02	Total/NA	Water	SM 2540C	
400-132608-7	EB-01	Total/NA	Water	SM 2540C	
MB 400-338504/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338504/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132608-1 DU	MW-300	Total/NA	Water	SM 2540C	

Analysis Batch: 338595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-8	FB-01	Total/NA	Water	SM 2540C	
MB 400-338595/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-338595/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-132607-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 338923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-132608-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-132608-3	MW-304	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 338923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-132608-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-132608-6	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-132608-7	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-132608-8	FB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-338923/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-338923/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-338923/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-132603-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-132603-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 338925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-132608-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-132608-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-132608-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-132608-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-132608-6	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-132608-7	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-132608-8	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-338925/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-338925/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-338925/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-132603-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-132603-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 339638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	SM 4500 F C	
400-132608-2	MW-303	Total/NA	Water	SM 4500 F C	
400-132608-3	MW-304	Total/NA	Water	SM 4500 F C	
400-132608-4	MW-305	Total/NA	Water	SM 4500 F C	
MB 400-339638/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-339638/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-132603-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-132603-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-132603-A-8 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 339971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-5	MW-308	Total/NA	Water	SM 4500 F C	
400-132608-6	DUP-02	Total/NA	Water	SM 4500 F C	
400-132608-7	EB-01	Total/NA	Water	SM 4500 F C	
400-132608-8	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-339971/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-339971/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-132608-5 MS	MW-308	Total/NA	Water	SM 4500 F C	
400-132608-5 MSD	MW-308	Total/NA	Water	SM 4500 F C	
400-132607-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 342179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	Field Sampling	
400-132608-2	MW-303	Total/NA	Water	Field Sampling	
400-132608-3	MW-304	Total/NA	Water	Field Sampling	
400-132608-4	MW-305	Total/NA	Water	Field Sampling	
400-132608-5	MW-308	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-338434/1-A ^5
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/16/17 08:30	01/16/17 13:57	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/16/17 13:57	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/16/17 13:57	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 13:57	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/16/17 13:57	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/16/17 13:57	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/16/17 13:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/16/17 13:57	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/16/17 13:57	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/16/17 13:57	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/16/17 13:57	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/16/17 13:57	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/16/17 13:57	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/16/17 13:57	5

Lab Sample ID: MB 400-338434/1-A ^5
Matrix: Water
Analysis Batch: 338854

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		01/16/17 08:30	01/17/17 15:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		01/16/17 08:30	01/17/17 15:40	5
Barium	0.00049	U	0.0025	0.00049	mg/L		01/16/17 08:30	01/17/17 15:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/17/17 15:40	5
Boron	0.021	U	0.050	0.021	mg/L		01/16/17 08:30	01/17/17 15:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		01/16/17 08:30	01/17/17 15:40	5
Calcium	0.13	U	0.25	0.13	mg/L		01/16/17 08:30	01/17/17 15:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		01/16/17 08:30	01/17/17 15:40	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		01/16/17 08:30	01/17/17 15:40	5
Lead	0.00035	U	0.0013	0.00035	mg/L		01/16/17 08:30	01/17/17 15:40	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		01/16/17 08:30	01/17/17 15:40	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		01/16/17 08:30	01/17/17 15:40	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		01/16/17 08:30	01/17/17 15:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		01/16/17 08:30	01/17/17 15:40	5

Lab Sample ID: LCS 400-338434/2-A
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0510		mg/L		102	80 - 120
Arsenic	0.0500	0.0513		mg/L		103	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Boron	0.100	0.0998		mg/L		100	80 - 120
Cadmium	0.0500	0.0513		mg/L		103	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-338434/2-A
Matrix: Water
Analysis Batch: 338693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0500	0.0484		mg/L		97	80 - 120
Lead	0.0500	0.0487		mg/L		97	80 - 120
Lithium	0.0500	0.0518		mg/L		104	80 - 120
Molybdenum	0.100	0.101		mg/L		101	80 - 120
Selenium	0.0500	0.0507		mg/L		101	80 - 120
Thallium	0.0100	0.0100		mg/L		100	80 - 120

Lab Sample ID: LCS 400-338434/2-A
Matrix: Water
Analysis Batch: 338854

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0503		mg/L		101	80 - 120
Arsenic	0.0500	0.0504		mg/L		101	80 - 120
Barium	0.0500	0.0493		mg/L		99	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Boron	0.100	0.0996		mg/L		100	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	5.00	4.64		mg/L		93	80 - 120
Chromium	0.0500	0.0478		mg/L		96	80 - 120
Cobalt	0.0500	0.0484		mg/L		97	80 - 120
Lead	0.0500	0.0482		mg/L		96	80 - 120
Lithium	0.0500	0.0545		mg/L		109	80 - 120
Molybdenum	0.100	0.0993		mg/L		99	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.00999		mg/L		100	80 - 120

Lab Sample ID: 400-132608-1 MS
Matrix: Water
Analysis Batch: 338693

Client Sample ID: MW-300
Prep Type: Total Recoverable
Prep Batch: 338434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0533		mg/L		107	75 - 125
Arsenic	0.00046	U	0.0500	0.0515		mg/L		103	75 - 125
Barium	0.011		0.0500	0.0602		mg/L		98	75 - 125
Beryllium	0.00034	U	0.0500	0.0521		mg/L		104	75 - 125
Boron	0.027	I	0.100	0.140		mg/L		113	75 - 125
Cadmium	0.00034	U	0.0500	0.0507		mg/L		101	75 - 125
Calcium	0.51		5.00	5.39		mg/L		98	75 - 125
Chromium	0.0011	U	0.0500	0.0503		mg/L		101	75 - 125
Cobalt	0.00040	U	0.0500	0.0497		mg/L		99	75 - 125
Lead	0.00035	U	0.0500	0.0487		mg/L		97	75 - 125
Lithium	0.0032	U	0.0500	0.0493		mg/L		99	75 - 125
Molybdenum	0.00085	U	0.100	0.100		mg/L		100	75 - 125
Selenium	0.00024	U	0.0500	0.0514		mg/L		103	75 - 125
Thallium	0.000085	U	0.0100	0.0100		mg/L		100	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-132608-1 MSD — **Client Sample ID: MW-300**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 338693 — **Prep Batch: 338434**

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	0.0509		mg/L		102	75 - 125	5	20
Arsenic	0.00046	U	0.0500	0.0518		mg/L		104	75 - 125	1	20
Barium	0.011		0.0500	0.0594		mg/L		97	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0525		mg/L		105	75 - 125	1	20
Boron	0.027	I	0.100	0.132		mg/L		105	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0518		mg/L		104	75 - 125	2	20
Calcium	0.51		5.00	5.41		mg/L		98	75 - 125	0	20
Chromium	0.0011	U	0.0500	0.0511		mg/L		102	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0498		mg/L		100	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0491		mg/L		98	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0514		mg/L		103	75 - 125	4	20
Molybdenum	0.00085	U	0.100	0.100		mg/L		100	75 - 125	0	20
Selenium	0.00024	U	0.0500	0.0507		mg/L		101	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.00998		mg/L		100	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-338438/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338774 — **Prep Batch: 338438**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		01/14/17 13:29	01/17/17 09:40	1

Lab Sample ID: LCS 400-338438/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338774 — **Prep Batch: 338438**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00112		mg/L		111	80 - 120

Lab Sample ID: 400-132608-4 MS — **Client Sample ID: MW-305**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338774 — **Prep Batch: 338438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00219		mg/L		109	80 - 120

Lab Sample ID: 400-132608-4 MSD — **Client Sample ID: MW-305**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338774 — **Prep Batch: 338438**

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	0.00223		mg/L		111	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-338504/1
Matrix: Water
Analysis Batch: 338504

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			01/14/17 16:22	1

Lab Sample ID: LCS 400-338504/2
Matrix: Water
Analysis Batch: 338504

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	292		mg/L		100	78 - 122

Lab Sample ID: 400-132608-1 DU
Matrix: Water
Analysis Batch: 338504

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	30		30.0		mg/L		0	5

Lab Sample ID: MB 400-338595/1
Matrix: Water
Analysis Batch: 338595

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			01/16/17 15:17	1

Lab Sample ID: LCS 400-338595/2
Matrix: Water
Analysis Batch: 338595

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	286		mg/L		98	78 - 122

Lab Sample ID: 400-132607-A-4 DU
Matrix: Water
Analysis Batch: 338595

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	20		20.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-338925/6
Matrix: Water
Analysis Batch: 338925

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			01/18/17 09:06	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 400-338925/7
Matrix: Water
Analysis Batch: 338925

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	31.6		mg/L		105	90 - 110

Lab Sample ID: MRL 400-338925/3
Matrix: Water
Analysis Batch: 338925

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	2.19		mg/L		110	50 - 150

Lab Sample ID: 400-132603-A-10 MS
Matrix: Water
Analysis Batch: 338925

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	0.60	U	10.0	11.0		mg/L		110	73 - 120

Lab Sample ID: 400-132603-A-10 MSD
Matrix: Water
Analysis Batch: 338925

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	0.60	U	10.0	10.1	J3	mg/L		101	73 - 120	9	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-339638/3
Matrix: Water
Analysis Batch: 339638

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			01/24/17 14:48	1

Lab Sample ID: LCS 400-339638/4
Matrix: Water
Analysis Batch: 339638

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	4.22		mg/L		106	90 - 110

Lab Sample ID: 400-132603-A-1 MS
Matrix: Water
Analysis Batch: 339638

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	1.06		mg/L		106	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-132603-A-1 MSD
Matrix: Water
Analysis Batch: 339638

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: 400-132603-A-8 DU
Matrix: Water
Analysis Batch: 339638

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 400-339971/4
Matrix: Water
Analysis Batch: 339971

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			01/26/17 15:52	1

Lab Sample ID: LCS 400-339971/5
Matrix: Water
Analysis Batch: 339971

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	4.22		mg/L		106	90 - 110		

Lab Sample ID: 400-132608-5 MS
Matrix: Water
Analysis Batch: 339971

Client Sample ID: MW-308
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	1.12		mg/L		108	75 - 125		

Lab Sample ID: 400-132608-5 MSD
Matrix: Water
Analysis Batch: 339971

Client Sample ID: MW-308
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	1.10		mg/L		106	75 - 125	2	4

Lab Sample ID: 400-132607-A-5 DU
Matrix: Water
Analysis Batch: 339971

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 400-338923/6
Matrix: Water
Analysis Batch: 338923

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			01/18/17 08:41	1

Lab Sample ID: LCS 400-338923/7
Matrix: Water
Analysis Batch: 338923

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 400-338923/3
Matrix: Water
Analysis Batch: 338923

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	4.40	I	mg/L		88	50 - 150

Lab Sample ID: 400-132603-A-10 MS
Matrix: Water
Analysis Batch: 338923

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	1.4	U	10.0	10.1		mg/L		101	77 - 128

Lab Sample ID: 400-132603-A-10 MSD
Matrix: Water
Analysis Batch: 338923

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	1.4	U	10.0	10.1		mg/L		101	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 Surles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 2	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 - 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-300	1/10/17	0738	G	Water			X	X	X	X		
MW-303	1/10/17	0847	G	Water								
MW-304	1/10/17	1221	G	Water								
MW-305	1/10/17	1323	G	Water								
MW-308	1/10/17	1109	G	Water								
DUP-02	1/10/17	0747	G	W								
EB-01	1/10/17	1335	G	W								
FB-01	1/10/17	1215	G	W			X	X	X	X		

400-132608 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
1		1/12/17 1543	TAL		1/12/17 1543	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0°C, 0.3°C IR6

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132608-1
SDG Number: Landfill 2

Login Number: 132608
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.3°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-1
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-132608-2
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
2/16/2017 5:28:17 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 18
Chain of Custody 20
Receipt Checklists 21
Certification Summary 22

Job ID: 400-132608-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-132608-2

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-288556: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-132608-1), MW-303 (400-132608-2), MW-304 (400-132608-3), MW-305 (400-132608-4), MW-308 (400-132608-5), DUP-02 (400-132608-6), EB-01 (400-132608-7) and FB-01 (400-132608-8). 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 160-288556: The following samples were prepared at a reduced aliquot due to limited volume: MW-300 (400-132608-1), MW-303 (400-132608-2), MW-304 (400-132608-3), MW-305 (400-132608-4), MW-308 (400-132608-5), DUP-02 (400-132608-6), EB-01 (400-132608-7) and FB-01 (400-132608-8).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-288552: The following samples were prepared at a reduced aliquot due to limited volume: MW-300 (400-132608-1), MW-303 (400-132608-2), MW-304 (400-132608-3), MW-305 (400-132608-4), MW-308 (400-132608-5), DUP-02 (400-132608-6), EB-01 (400-132608-7) and FB-01 (400-132608-8).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-288552: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MW-300 (400-132608-1), MW-303 (400-132608-2), MW-304 (400-132608-3), MW-305 (400-132608-4), MW-308 (400-132608-5), DUP-02 (400-132608-6), EB-01 (400-132608-7) and FB-01 (400-132608-8). 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 Plant Crist

TestAmerica Job ID: 400-132608-2
SDG: Landfill 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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-2
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132608-1	MW-300	Water	01/10/17 07:38	01/12/17 15:43
400-132608-2	MW-303	Water	01/10/17 08:47	01/12/17 15:43
400-132608-3	MW-304	Water	01/10/17 12:21	01/12/17 15:43
400-132608-4	MW-305	Water	01/10/17 13:23	01/12/17 15:43
400-132608-5	MW-308	Water	01/10/17 11:09	01/12/17 15:43
400-132608-6	DUP-02	Water	01/10/17 07:47	01/12/17 15:43
400-132608-7	EB-01	Water	01/10/17 13:35	01/12/17 15:43
400-132608-8	FB-01	Water	01/10/17 12:15	01/12/17 15:43

Client Sample ID: MW-300

Date Collected: 01/10/17 07:38
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-1

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	0.734		0.265	0.273	1.00	0.283	pCi/L	01/20/17 12:15	02/13/17 08:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.65		0.627	0.759	1.00	0.550	pCi/L	01/20/17 12:45	02/09/17 11:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*1*
Y Carrier	*84.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*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	5.39		0.681	0.807	5.00	0.550	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-303

Date Collected: 01/10/17 08:47
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-2

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	0.551		0.244	0.249	1.00	0.294	pCi/L	01/20/17 12:15	02/13/17 08:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*01/20/17 12:15*	*02/13/17 08:40*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.78		0.562	0.660	1.00	0.538	pCi/L	01/20/17 12:45	02/09/17 11:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*1*
Y Carrier	*89.0*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*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	4.33		0.612	0.706	5.00	0.538	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-304

Date Collected: 01/10/17 12:21
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-3

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	4.04		0.499	0.617	1.00	0.212	pCi/L	01/20/17 12:15	02/15/17 13:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*01/20/17 12:15*	*02/15/17 13:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.56		0.711	0.876	1.00	0.632	pCi/L	01/20/17 12:45	02/09/17 11:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*1*
Y Carrier	*84.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*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	9.60		0.869	1.07	5.00	0.632	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-305

Date Collected: 01/10/17 13:23
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-4

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	0.635		0.237	0.244	1.00	0.262	pCi/L	01/20/17 12:15	02/13/17 10:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*01/20/17 12:15*	*02/13/17 10:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.52		0.410	0.434	1.00	0.506	pCi/L	01/20/17 12:45	02/09/17 11:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*1*
Y Carrier	*86.4*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*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	2.16		0.474	0.497	5.00	0.506	pCi/L		02/15/17 19:01	1

Client Sample ID: MW-308

Date Collected: 01/10/17 11:09
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-5

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	0.993		0.280	0.294	1.00	0.236	pCi/L	01/20/17 12:15	02/13/17 10:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:15*	*02/13/17 10:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.51		0.490	0.542	1.00	0.531	pCi/L	01/20/17 12:45	02/09/17 11:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*1*
Y Carrier	*88.6*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:58*	*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	3.50		0.565	0.616	5.00	0.531	pCi/L		02/15/17 19:01	1

Client Sample ID: DUP-02

Date Collected: 01/10/17 07:47
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-6

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	0.977		0.280	0.293	1.00	0.247	pCi/L	01/20/17 12:15	02/13/17 10:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*01/20/17 12:15*	*02/13/17 10:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.24		0.583	0.702	1.00	0.528	pCi/L	01/20/17 12:45	02/09/17 11:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*1*
Y Carrier	*87.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:59*	*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	5.22		0.647	0.760	5.00	0.528	pCi/L		02/15/17 19:01	1

Client Sample ID: EB-01

Date Collected: 01/10/17 13:35
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-7

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	0.0217	U	0.102	0.102	1.00	0.204	pCi/L	01/20/17 12:15	02/13/17 10:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*01/20/17 12:15*	*02/13/17 10:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373	U	0.349	0.351	1.00	0.565	pCi/L	01/20/17 12:45	02/09/17 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 12:00*	*1*
Y Carrier	*89.0*		*40 - 110*	*01/20/17 12:45*	*02/09/17 12:00*	*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	0.395	U	0.364	0.366	5.00	0.565	pCi/L		02/15/17 19:01	1

Client Sample ID: FB-01

Date Collected: 01/10/17 12:15
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-8

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	0.0728	U	0.115	0.115	1.00	0.201	pCi/L	01/20/17 12:15	02/13/17 10:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*01/20/17 12:15*	*02/13/17 10:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.152	U	0.283	0.283	1.00	0.482	pCi/L	01/20/17 12:45	02/09/17 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*01/20/17 12:45*	*02/09/17 12:00*	*1*
Y Carrier	*92.7*		*40 - 110*	*01/20/17 12:45*	*02/09/17 12:00*	*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	0.225	U	0.306	0.306	5.00	0.482	pCi/L		02/15/17 19:01	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-132608-2
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 01/10/17 07:38
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292018	02/13/17 08:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-303
Date Collected: 01/10/17 08:47
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292018	02/13/17 08:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-304
Date Collected: 01/10/17 12:21
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292630	02/15/17 13:23	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: MW-305
Date Collected: 01/10/17 13:23
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292017	02/13/17 10:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-2
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 01/10/17 11:09
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292017	02/13/17 10:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:58	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: DUP-02
Date Collected: 01/10/17 07:47
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292017	02/13/17 10:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291708	02/09/17 11:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: EB-01
Date Collected: 01/10/17 13:35
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292017	02/13/17 10:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:00	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Client Sample ID: FB-01
Date Collected: 01/10/17 12:15
Date Received: 01/12/17 15:43

Lab Sample ID: 400-132608-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			288552	01/20/17 12:15	AS	TAL SL
Total/NA	Analysis	9315		1	292017	02/13/17 10:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			288556	01/20/17 12:45	AS	TAL SL
Total/NA	Analysis	9320		1	291733	02/09/17 12:00	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	292649	02/15/17 19:01	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 288552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	PrecSep-21	
400-132608-2	MW-303	Total/NA	Water	PrecSep-21	
400-132608-3	MW-304	Total/NA	Water	PrecSep-21	
400-132608-4	MW-305	Total/NA	Water	PrecSep-21	
400-132608-5	MW-308	Total/NA	Water	PrecSep-21	
400-132608-6	DUP-02	Total/NA	Water	PrecSep-21	
400-132608-7	EB-01	Total/NA	Water	PrecSep-21	
400-132608-8	FB-01	Total/NA	Water	PrecSep-21	
MB 160-288552/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-288552/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-288552/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 288556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132608-1	MW-300	Total/NA	Water	PrecSep_0	
400-132608-2	MW-303	Total/NA	Water	PrecSep_0	
400-132608-3	MW-304	Total/NA	Water	PrecSep_0	
400-132608-4	MW-305	Total/NA	Water	PrecSep_0	
400-132608-5	MW-308	Total/NA	Water	PrecSep_0	
400-132608-6	DUP-02	Total/NA	Water	PrecSep_0	
400-132608-7	EB-01	Total/NA	Water	PrecSep_0	
400-132608-8	FB-01	Total/NA	Water	PrecSep_0	
MB 160-288556/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-288556/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-288556/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-288552/1-A
Matrix: Water
Analysis Batch: 292018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288552

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03292	U	0.104	0.104	1.00	0.240	pCi/L	01/20/17 12:15	02/13/17 11:36	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:15*	*02/13/17 11:36*	*1*

Lab Sample ID: LCS 160-288552/2-A
Matrix: Water
Analysis Batch: 292648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288552

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			8.01	9.500		1.11	1.00	0.182	pCi/L	119	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.2*		*40 - 110*

Lab Sample ID: LCSD 160-288552/3-A
Matrix: Water
Analysis Batch: 292016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288552

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			8.01	10.72		1.27	1.00	0.193	pCi/L	134	68 - 137	0.51	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-288556/1-A
Matrix: Water
Analysis Batch: 291708

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288556

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2407	U	0.321	0.321	1.00	0.534	pCi/L	01/20/17 12:45	02/09/17 11:56	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:56*	*1*
Y Carrier	*87.5*		*40 - 110*	*01/20/17 12:45*	*02/09/17 11:56*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-288556/2-A
Matrix: Water
Analysis Batch: 291708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288556

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			18.5	23.68		2.51	1.00	0.506	pCi/L	128	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.2*		*40 - 110*
Y Carrier	*88.6*		*40 - 110*

Lab Sample ID: LCSD 160-288556/3-A
Matrix: Water
Analysis Batch: 291708

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288556

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			18.5	21.58		2.27	1.00	0.442	pCi/L	117	56 - 140	0.44	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.6*		*40 - 110*
Y Carrier	*87.5*		*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 Surles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 2	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 - 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-300	1/10/17	0738	G	Water			X	X	X	X		
MW-303	1/10/17	0847	G	Water			|	|	|	|		
MW-304	1/10/17	1221	G	Water			|	|	|	|		
MW-305	1/10/17	1323	G	Water			|	|	|	|		
MW-308	1/10/17	1109	G	Water			|	|	|	|		
DUP-02	1/10/17	0747	G	W			|	|	|	|		
EB-01	1/10/17	1335	G	W			|	|	|	|		400-132608 COC
FB-01	1/10/17	1215	G	W			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
[signature]	1/12/17 1543	RDH	[signature]	1/12/17 1543	TA

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.0°C, 0.3°C IR6

2/16/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-132608-2
SDG Number: Landfill 2

Login Number: 132608
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.3°C IR-6
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	

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-2
SDG: Landfill 2

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-132608-2
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135149-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
4/5/2017 3:36:42 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 20
Chain of Custody 26
Receipt Checklists 27
Certification Summary 28

Job ID: 400-135149-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135149-1

Metals
Method(s) 6020: The initial calibration verification (ICV) result for batch 346510 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike duplicate (MSD) recoveries for analytical batch 346868 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-135149-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00069	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.78		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00048	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0042	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0023		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.57				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-135149-2

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
Calcium	0.48		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00050	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	5.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.74				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-135149-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00069	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.022	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	1.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Molybdenum	0.0022	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0025		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-135149-4

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

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-306 (Continued) — Lab Sample ID: 400-135149-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.62		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00091	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-135149-5

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	0.75		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00040	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.81				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-135149-6

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	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

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

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 Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135149-1	MW-100	Water	03/13/17 10:12	03/14/17 15:26
400-135149-2	MW-107	Water	03/13/17 11:38	03/14/17 15:26
400-135149-3	MW-108	Water	03/13/17 13:36	03/14/17 15:26
400-135149-4	MW-306	Water	03/13/17 17:33	03/14/17 15:26
400-135149-5	MW-307	Water	03/13/17 16:22	03/14/17 15:26
400-135149-6	DUP-01	Water	03/13/17 12:36	03/14/17 15:26

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 03/13/17 10:12
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-1
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		03/20/17 09:14	03/20/17 16:48	5
Arsenic	**0.00069**	**I**	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 16:48	5
Barium	**0.015**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 16:48	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 16:48	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 16:48	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 16:48	5
Calcium	**0.78**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 16:48	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 16:48	5
Cobalt	**0.00048**	**I**	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 16:48	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 16:48	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 16:48	5
Molybdenum	**0.0042**	**I**	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 16:48	5
Selenium	**0.0023**		0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 16:48	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 16:48	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		03/15/17 09:41	03/16/17 13:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6.0**		5.0	3.4	mg/L			03/16/17 16:35	1
Chloride	**5.2**		2.0	0.60	mg/L			03/23/17 14:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:18	1
Sulfate	**2.5**	**I**	5.0	1.4	mg/L			03/23/17 09:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.57**				SU			03/13/17 10:12	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 03/13/17 11:38
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-2
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		03/20/17 09:14	03/20/17 17:20	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 17:20	5
Barium	**0.013**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 17:20	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:20	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 17:20	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:20	5
Calcium	**0.48**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 17:20	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 17:20	5
Cobalt	**0.00050**	**I**	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 17:20	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 17:20	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 17:20	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 17:20	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 17:20	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 17:20	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		03/15/17 09:41	03/16/17 13:21	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			03/16/17 16:35	1
Chloride	**5.5**		2.0	0.60	mg/L			03/23/17 14:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:20	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 09:46	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.74**				SU			03/13/17 11:38	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 03/13/17 13:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-3
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		03/20/17 09:14	03/21/17 11:45	5
Arsenic	**0.00069**	**I**	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 17:47	5
Barium	**0.011**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 17:47	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:47	5
Boron	**0.022**	**I**	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 17:47	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:47	5
Calcium	**1.3**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 17:47	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 17:47	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 17:47	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 17:47	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 17:47	5
Molybdenum	**0.0022**	**I**	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 17:47	5
Selenium	**0.0025**		0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 17:47	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 17:47	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		03/15/17 09:41	03/16/17 13:36	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8.0**		5.0	3.4	mg/L			03/16/17 16:35	1
Chloride	**6.8**		2.0	0.60	mg/L			03/23/17 14:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:23	1
Sulfate	**2.2**	**I**	5.0	1.4	mg/L			03/23/17 10:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.63**				SU			03/13/17 13:36	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 03/13/17 17:33
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-4
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		03/20/17 09:14	03/20/17 17:51	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 17:51	5
Barium	**0.013**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 17:51	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:51	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 17:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:51	5
Calcium	**0.62**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 17:51	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 17:51	5
Cobalt	**0.00091**	**I**	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 17:51	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 17:51	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 17:51	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 17:51	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 17:51	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 17:51	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		03/15/17 09:41	03/16/17 13:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**22**		5.0	3.4	mg/L			03/16/17 16:35	1
Chloride	**5.6**		2.0	0.60	mg/L			03/23/17 14:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:26	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 10:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.87**				SU			03/13/17 17:33	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-307
Date Collected: 03/13/17 16:22
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-5
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		03/20/17 09:14	03/20/17 17:56	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 17:56	5
Barium	**0.016**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 17:56	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:56	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 17:56	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 17:56	5
Calcium	**0.75**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 17:56	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 17:56	5
Cobalt	**0.00040**	**I**	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 17:56	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 17:56	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 17:56	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 17:56	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 17:56	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 17:56	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		03/15/17 09:41	03/16/17 13:39	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			03/16/17 16:35	1
Chloride	**4.1**		2.0	0.60	mg/L			03/24/17 08:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:29	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 10:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.81**				SU			03/13/17 16:22	1

Client Sample ID: DUP-01

Date Collected: 03/13/17 12:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-6

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		03/20/17 09:14	03/20/17 18:00	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:00	5
Barium	**0.011**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:00	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:00	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:00	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:00	5
Calcium	**1.2**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:00	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:00	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:00	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:00	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:00	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:00	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:00	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:00	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		03/15/17 09:41	03/16/17 13:40	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**12**		5.0	3.4	mg/L			03/16/17 16:35	1
Chloride	**6.5**		2.0	0.60	mg/L			03/24/17 08:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:32	1
Sulfate	**2.2**	**I**	5.0	1.4	mg/L			03/23/17 10:28	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-100
Date Collected: 03/13/17 10:12
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 16:48	DRE	TAL PEN
Total/NA	Prep	7470A			345791	03/15/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346037	03/16/17 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346006	03/16/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	346960	03/23/17 14:41	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346868	03/23/17 09:46	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/13/17 10:12	BWS	TAL PEN

Client Sample ID: MW-107
Date Collected: 03/13/17 11:38
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 17:20	DRE	TAL PEN
Total/NA	Prep	7470A			345791	03/15/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346037	03/16/17 13:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346006	03/16/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	346960	03/23/17 14:41	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346868	03/23/17 09:46	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/13/17 11:38	BWS	TAL PEN

Client Sample ID: MW-108
Date Collected: 03/13/17 13:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 17:47	DRE	TAL PEN
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 11:45	DRE	TAL PEN
Total/NA	Prep	7470A			345791	03/15/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346037	03/16/17 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346006	03/16/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	346960	03/23/17 14:41	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346868	03/23/17 10:28	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/13/17 13:36	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 03/13/17 17:33
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 17:51	DRE	TAL PEN
Total/NA	Prep	7470A			345791	03/15/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346037	03/16/17 13:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346006	03/16/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	346960	03/23/17 14:41	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346868	03/23/17 10:28	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/13/17 17:33	BWS	TAL PEN

Client Sample ID: MW-307
Date Collected: 03/13/17 16:22
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 17:56	DRE	TAL PEN
Total/NA	Prep	7470A			345791	03/15/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346037	03/16/17 13:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346006	03/16/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:38	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346868	03/23/17 10:28	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/13/17 16:22	BWS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 03/13/17 12:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:00	DRE	TAL PEN
Total/NA	Prep	7470A			345791	03/15/17 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346037	03/16/17 13:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346006	03/16/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:38	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:32	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346868	03/23/17 10:28	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 345791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	7470A	
400-135149-2	MW-107	Total/NA	Water	7470A	
400-135149-3	MW-108	Total/NA	Water	7470A	
400-135149-4	MW-306	Total/NA	Water	7470A	
400-135149-5	MW-307	Total/NA	Water	7470A	
400-135149-6	DUP-01	Total/NA	Water	7470A	
MB 400-345791/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-345791/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135143-M-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-135143-M-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 346037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	7470A	345791
400-135149-2	MW-107	Total/NA	Water	7470A	345791
400-135149-3	MW-108	Total/NA	Water	7470A	345791
400-135149-4	MW-306	Total/NA	Water	7470A	345791
400-135149-5	MW-307	Total/NA	Water	7470A	345791
400-135149-6	DUP-01	Total/NA	Water	7470A	345791
MB 400-345791/14-A	Method Blank	Total/NA	Water	7470A	345791
LCS 400-345791/15-A	Lab Control Sample	Total/NA	Water	7470A	345791
400-135143-M-1-B MS	Matrix Spike	Total/NA	Water	7470A	345791
400-135143-M-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	345791

Prep Batch: 346387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total Recoverable	Water	3005A	
400-135149-2	MW-107	Total Recoverable	Water	3005A	
400-135149-3	MW-108	Total Recoverable	Water	3005A	
400-135149-4	MW-306	Total Recoverable	Water	3005A	
400-135149-5	MW-307	Total Recoverable	Water	3005A	
400-135149-6	DUP-01	Total Recoverable	Water	3005A	
MB 400-346387/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-346387/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135149-1 MS	MW-100	Total Recoverable	Water	3005A	
400-135149-1 MSD	MW-100	Total Recoverable	Water	3005A	

Analysis Batch: 346510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total Recoverable	Water	6020	346387
400-135149-2	MW-107	Total Recoverable	Water	6020	346387
400-135149-3	MW-108	Total Recoverable	Water	6020	346387
400-135149-4	MW-306	Total Recoverable	Water	6020	346387
400-135149-5	MW-307	Total Recoverable	Water	6020	346387
400-135149-6	DUP-01	Total Recoverable	Water	6020	346387
MB 400-346387/1-A ^5	Method Blank	Total Recoverable	Water	6020	346387
LCS 400-346387/2-A	Lab Control Sample	Total Recoverable	Water	6020	346387
400-135149-1 MS	MW-100	Total Recoverable	Water	6020	346387
400-135149-1 MSD	MW-100	Total Recoverable	Water	6020	346387

Metals (Continued)

Analysis Batch: 346660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-3	MW-108	Total Recoverable	Water	6020	346387
MB 400-346387/1-A ^5	Method Blank	Total Recoverable	Water	6020	346387
LCS 400-346387/2-A	Lab Control Sample	Total Recoverable	Water	6020	346387

General Chemistry

Analysis Batch: 346006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	SM 2540C	
400-135149-2	MW-107	Total/NA	Water	SM 2540C	
400-135149-3	MW-108	Total/NA	Water	SM 2540C	
400-135149-4	MW-306	Total/NA	Water	SM 2540C	
400-135149-5	MW-307	Total/NA	Water	SM 2540C	
400-135149-6	DUP-01	Total/NA	Water	SM 2540C	
MB 400-346006/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346006/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135149-1 DU	MW-100	Total/NA	Water	SM 2540C	
400-135149-4 DU	MW-306	Total/NA	Water	SM 2540C	

Analysis Batch: 346491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	SM 4500 F C	
400-135149-2	MW-107	Total/NA	Water	SM 4500 F C	
400-135149-3	MW-108	Total/NA	Water	SM 4500 F C	
400-135149-4	MW-306	Total/NA	Water	SM 4500 F C	
400-135149-5	MW-307	Total/NA	Water	SM 4500 F C	
400-135149-6	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-346491/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-346491/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135080-A-17 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-135080-A-17 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-135184-B-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 346868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-135149-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-135149-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-135149-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-135149-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
400-135149-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-346868/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-346868/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-346868/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135327-F-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135327-F-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 346960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 346960 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-135149-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-135149-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
MB 400-346960/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-346960/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-346960/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135327-F-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135327-F-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 347044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-135149-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-347044/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347044/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347044/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135149-5 MS	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-135149-5 MSD	MW-307	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 348261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	Field Sampling	
400-135149-2	MW-107	Total/NA	Water	Field Sampling	
400-135149-3	MW-108	Total/NA	Water	Field Sampling	
400-135149-4	MW-306	Total/NA	Water	Field Sampling	
400-135149-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-346387/1-A ^5
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/20/17 09:14	03/20/17 16:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 16:37	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 16:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 16:37	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 16:37	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 16:37	5
Calcium	0.13	U	0.25	0.13	mg/L		03/20/17 09:14	03/20/17 16:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 16:37	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 16:37	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 16:37	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 16:37	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 16:37	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 16:37	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 16:37	5

Lab Sample ID: MB 400-346387/1-A ^5
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/20/17 09:14	03/21/17 11:36	5

Lab Sample ID: LCS 400-346387/2-A
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0558		mg/L		112	80 - 120
Arsenic	0.0500	0.0496		mg/L		99	80 - 120
Barium	0.0500	0.0502		mg/L		100	80 - 120
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Boron	0.100	0.0989		mg/L		99	80 - 120
Cadmium	0.0500	0.0526		mg/L		105	80 - 120
Calcium	5.00	5.17		mg/L		103	80 - 120
Chromium	0.0500	0.0507		mg/L		101	80 - 120
Cobalt	0.0500	0.0479		mg/L		96	80 - 120
Lead	0.0500	0.0524		mg/L		105	80 - 120
Lithium	0.0500	0.0521		mg/L		104	80 - 120
Molybdenum	0.100	0.100		mg/L		100	80 - 120
Selenium	0.0500	0.0507		mg/L		101	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: LCS 400-346387/2-A
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0553		mg/L		111	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-135149-1 MS
Matrix: Water
Analysis Batch: 346510

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0597		mg/L		119	75 - 125
Arsenic	0.00069	I	0.0500	0.0512		mg/L		101	75 - 125
Barium	0.015		0.0500	0.0675		mg/L		104	75 - 125
Beryllium	0.00034	U	0.0500	0.0536		mg/L		107	75 - 125
Boron	0.021	U	0.100	0.123		mg/L		123	75 - 125
Cadmium	0.00034	U	0.0500	0.0534		mg/L		107	75 - 125
Calcium	0.78		5.00	5.97		mg/L		104	75 - 125
Chromium	0.0011	U	0.0500	0.0521		mg/L		104	75 - 125
Cobalt	0.00048	I	0.0500	0.0496		mg/L		98	75 - 125
Lead	0.00035	U	0.0500	0.0475		mg/L		95	75 - 125
Lithium	0.0032	U	0.0500	0.0526		mg/L		105	75 - 125
Molybdenum	0.0042	I	0.100	0.109		mg/L		105	75 - 125
Selenium	0.0023		0.0500	0.0558		mg/L		107	75 - 125
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-135149-1 MSD
Matrix: Water
Analysis Batch: 346510

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 346387

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	0.0569		mg/L		114	75 - 125	5	20
Arsenic	0.00069	I	0.0500	0.0512		mg/L		101	75 - 125	0	20
Barium	0.015		0.0500	0.0667		mg/L		103	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0534		mg/L		107	75 - 125	0	20
Boron	0.021	U	0.100	0.120		mg/L		120	75 - 125	2	20
Cadmium	0.00034	U	0.0500	0.0528		mg/L		106	75 - 125	1	20
Calcium	0.78		5.00	6.02		mg/L		105	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0522		mg/L		104	75 - 125	0	20
Cobalt	0.00048	I	0.0500	0.0499		mg/L		99	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0472		mg/L		94	75 - 125	0	20
Lithium	0.0032	U	0.0500	0.0544		mg/L		109	75 - 125	3	20
Molybdenum	0.0042	I	0.100	0.104		mg/L		100	75 - 125	5	20
Selenium	0.0023		0.0500	0.0522		mg/L		100	75 - 125	7	20
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-345791/14-A
Matrix: Water
Analysis Batch: 346037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 345791

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/15/17 09:08	03/16/17 12:54	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 400-345791/15-A
Matrix: Water
Analysis Batch: 346037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 345791

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.00104		mg/L		103	80 - 120		

Lab Sample ID: 400-135143-M-1-B MS
Matrix: Water
Analysis Batch: 346037

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 345791

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.000070	U	0.00201	0.00182		mg/L		90	80 - 120		

Lab Sample ID: 400-135143-M-1-C MSD
Matrix: Water
Analysis Batch: 346037

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 345791

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	0.00166		mg/L		82	80 - 120	9	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-346006/1
Matrix: Water
Analysis Batch: 346006

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			03/16/17 16:35	1

Lab Sample ID: LCS 400-346006/2
Matrix: Water
Analysis Batch: 346006

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	240		mg/L		82	78 - 122		

Lab Sample ID: 400-135149-1 DU
Matrix: Water
Analysis Batch: 346006

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	6.0			6.00		mg/L				0	5

Lab Sample ID: 400-135149-4 DU
Matrix: Water
Analysis Batch: 346006

Client Sample ID: MW-306
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	22			22.0		mg/L				0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-346960/6
Matrix: Water
Analysis Batch: 346960

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/23/17 12:13	1

Lab Sample ID: LCS 400-346960/7
Matrix: Water
Analysis Batch: 346960

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	32.0		mg/L		107	90 - 110

Lab Sample ID: MRL 400-346960/3
Matrix: Water
Analysis Batch: 346960

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	1.93	I	mg/L		96	50 - 150

Lab Sample ID: 400-135327-F-3 MS
Matrix: Water
Analysis Batch: 346960

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	2600		1000	2580	J3	mg/L		1	73 - 120

Lab Sample ID: 400-135327-F-3 MSD
Matrix: Water
Analysis Batch: 346960

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	2600		1000	2600	J3	mg/L		3	73 - 120	1	8

Lab Sample ID: MB 400-347044/6
Matrix: Water
Analysis Batch: 347044

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/24/17 08:04	1

Lab Sample ID: LCS 400-347044/7
Matrix: Water
Analysis Batch: 347044

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	31.4		mg/L		105	90 - 110

Lab Sample ID: MRL 400-347044/3
Matrix: Water
Analysis Batch: 347044

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	2.08		mg/L		104	50 - 150

Lab Sample ID: 400-135149-5 MS
Matrix: Water
Analysis Batch: 347044

Client Sample ID: MW-307
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	4.1		10.0	15.3		mg/L		112	73 - 120		

Lab Sample ID: 400-135149-5 MSD
Matrix: Water
Analysis Batch: 347044

Client Sample ID: MW-307
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.1		10.0	15.2		mg/L		111	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-346491/4
Matrix: Water
Analysis Batch: 346491

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			03/20/17 18:05	1

Lab Sample ID: LCS 400-346491/3
Matrix: Water
Analysis Batch: 346491

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	4.05		mg/L		101	90 - 110		

Lab Sample ID: 400-135080-A-17 MS
Matrix: Water
Analysis Batch: 346491

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	0.040	I	1.00	1.06		mg/L		102	75 - 125		

Lab Sample ID: 400-135080-A-17 MSD
Matrix: Water
Analysis Batch: 346491

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	0.040	I	1.00	1.02		mg/L		98	75 - 125	4	4

Lab Sample ID: 400-135184-B-1 DU
Matrix: Water
Analysis Batch: 346491

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 400-346868/6
Matrix: Water
Analysis Batch: 346868

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			03/23/17 08:17	1

Lab Sample ID: LCS 400-346868/7
Matrix: Water
Analysis Batch: 346868

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	14.2		mg/L		95	90 - 110

Lab Sample ID: MRL 400-346868/3
Matrix: Water
Analysis Batch: 346868

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	4.47	I	mg/L		89	50 - 150

Lab Sample ID: 400-135327-F-3 MS
Matrix: Water
Analysis Batch: 346868

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	1.7	I	10.0	13.4		mg/L		117	77 - 128

Lab Sample ID: 400-135327-F-3 MSD
Matrix: Water
Analysis Batch: 346868

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	1.7	I	10.0	1.4	U J3	mg/L		0	77 - 128	NC	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	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63822-23627.1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Background	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-135149 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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N	N		
MW-100	3-13-17	1012	G	Water			X	X	X	X	X	X		
MW-107	3-13-17	1138	G	Water			X	X	X	X	X	X		
MW-108	3-13-17	1336	G	Water			X	X	X	X	X	X		
MW-306	3-13-17	1733	G	Water			X	X	X	X	X	X		
MW-307	3-13-17	1622	G	Water			X	X	X	X	X	X		
Dup-01	3-13-17	1236	G	water			X	X	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: [signature]	Date/Time: 3-14-17 ~~1545~~ 1445	Company: RDH Env.	Received by:	Date/Time:	Company
Relinquished by: Brenda Hagendorfer	Date/Time: 3-14-17 1526	Company: RDH Env	Received by: [signature]	Date/Time: 3-14-17 1526	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: 0.0, 5.8°C [initials]

4/5/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135149-1
SDG Number: Background

Login Number: 135149
List Number: 1
Creator: Franklin, Justin H

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	0.0, 5.8°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-135149-1
SDG: Background

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135149-2
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/17/2017 5:57:00 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 12
Chronicle 13
QC Association 15
QC Sample Results 16
Chain of Custody 18
Receipt Checklists 19
Certification Summary 20

Job ID: 400-135149-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135149-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-298564: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-298564. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-298558: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-298558. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135149-1	MW-100	Water	03/13/17 10:12	03/14/17 15:26
400-135149-2	MW-107	Water	03/13/17 11:38	03/14/17 15:26
400-135149-3	MW-108	Water	03/13/17 13:36	03/14/17 15:26
400-135149-4	MW-306	Water	03/13/17 17:33	03/14/17 15:26
400-135149-5	MW-307	Water	03/13/17 16:22	03/14/17 15:26
400-135149-6	DUP-01	Water	03/13/17 12:36	03/14/17 15:26

Client Sample ID: MW-100

Date Collected: 03/13/17 10:12
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-1

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	0.291		0.101	0.105	1.00	0.0948	pCi/L	03/20/17 11:07	04/11/17 08:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.401		0.220	0.223	1.00	0.330	pCi/L	03/20/17 11:53	04/03/17 10:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*1*
Y Carrier	*89.3*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*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	0.693		0.243	0.247	5.00	0.330	pCi/L		04/12/17 13:13	1

Client Sample ID: MW-107
Date Collected: 03/13/17 11:38
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-2
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	0.266		0.0956	0.0985	1.00	0.0887	pCi/L	03/20/17 11:07	04/11/17 08:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.671		0.232	0.240	1.00	0.313	pCi/L	03/20/17 11:53	04/03/17 10:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*1*
Y Carrier	*86.4*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*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	0.937		0.251	0.259	5.00	0.313	pCi/L		04/12/17 13:13	1

Client Sample ID: MW-108

Date Collected: 03/13/17 13:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-3

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	0.284		0.0958	0.0991	1.00	0.0861	pCi/L	03/20/17 11:07	04/11/17 08:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.59		0.291	0.326	1.00	0.308	pCi/L	03/20/17 11:53	04/03/17 10:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*1*
Y Carrier	*88.6*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*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	1.87		0.307	0.341	5.00	0.308	pCi/L		04/12/17 13:13	1

Client Sample ID: MW-306
Date Collected: 03/13/17 17:33
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-4
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	0.281		0.0986	0.102	1.00	0.0920	pCi/L	03/20/17 11:07	04/11/17 08:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.984		0.253	0.269	1.00	0.299	pCi/L	03/20/17 11:53	04/03/17 10:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*1*
Y Carrier	*87.9*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:51*	*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	1.26		0.272	0.288	5.00	0.299	pCi/L		04/12/17 13:13	1

Client Sample ID: MW-307
Date Collected: 03/13/17 16:22
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-5
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	0.159		0.0818	0.0831	1.00	0.102	pCi/L	03/20/17 11:07	04/11/17 08:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.283	U	0.210	0.212	1.00	0.328	pCi/L	03/20/17 11:53	04/03/17 10:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:52*	*1*
Y Carrier	*83.4*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:52*	*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	0.442		0.226	0.227	5.00	0.328	pCi/L		04/12/17 13:13	1

Client Sample ID: DUP-01

Date Collected: 03/13/17 12:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-6

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	0.369		0.106	0.111	1.00	0.0843	pCi/L	03/20/17 11:07	04/11/17 08:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:53*	*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		0.278	0.306	1.00	0.309	pCi/L	03/20/17 11:53	04/03/17 10:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:53*	*1*
Y Carrier	*90.5*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:53*	*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	1.78		0.297	0.326	5.00	0.309	pCi/L		04/12/17 13:13	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 03/13/17 10:12
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298558	03/20/17 11:07	MBC	TAL SL
Total/NA	Analysis	9315		1	302768	04/11/17 08:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			298564	03/20/17 11:53	MBC	TAL SL
Total/NA	Analysis	9320		1	301113	04/03/17 10:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303287	04/12/17 13:13	MLK	TAL SL

Client Sample ID: MW-107
Date Collected: 03/13/17 11:38
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298558	03/20/17 11:07	MBC	TAL SL
Total/NA	Analysis	9315		1	302768	04/11/17 08:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			298564	03/20/17 11:53	MBC	TAL SL
Total/NA	Analysis	9320		1	301113	04/03/17 10:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303287	04/12/17 13:13	MLK	TAL SL

Client Sample ID: MW-108
Date Collected: 03/13/17 13:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298558	03/20/17 11:07	MBC	TAL SL
Total/NA	Analysis	9315		1	302769	04/11/17 08:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			298564	03/20/17 11:53	MBC	TAL SL
Total/NA	Analysis	9320		1	301113	04/03/17 10:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303287	04/12/17 13:13	MLK	TAL SL

Client Sample ID: MW-306
Date Collected: 03/13/17 17:33
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298558	03/20/17 11:07	MBC	TAL SL
Total/NA	Analysis	9315		1	302769	04/11/17 08:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			298564	03/20/17 11:53	MBC	TAL SL
Total/NA	Analysis	9320		1	301113	04/03/17 10:51	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303287	04/12/17 13:13	MLK	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

Client Sample ID: MW-307

Date Collected: 03/13/17 16:22
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298558	03/20/17 11:07	MBC	TAL SL
Total/NA	Analysis	9315		1	302769	04/11/17 08:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			298564	03/20/17 11:53	MBC	TAL SL
Total/NA	Analysis	9320		1	301113	04/03/17 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303287	04/12/17 13:13	MLK	TAL SL

Client Sample ID: DUP-01

Date Collected: 03/13/17 12:36
Date Received: 03/14/17 15:26

Lab Sample ID: 400-135149-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298558	03/20/17 11:07	MBC	TAL SL
Total/NA	Analysis	9315		1	302769	04/11/17 08:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			298564	03/20/17 11:53	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303287	04/12/17 13:13	MLK	TAL SL

Laboratory References:

TAL SL = 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 Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

Rad

Prep Batch: 298558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	PrecSep-21	
400-135149-2	MW-107	Total/NA	Water	PrecSep-21	
400-135149-3	MW-108	Total/NA	Water	PrecSep-21	
400-135149-4	MW-306	Total/NA	Water	PrecSep-21	
400-135149-5	MW-307	Total/NA	Water	PrecSep-21	
400-135149-6	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-298558/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-298558/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-298558/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 298564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-1	MW-100	Total/NA	Water	PrecSep_0	
400-135149-2	MW-107	Total/NA	Water	PrecSep_0	
400-135149-3	MW-108	Total/NA	Water	PrecSep_0	
400-135149-4	MW-306	Total/NA	Water	PrecSep_0	
400-135149-5	MW-307	Total/NA	Water	PrecSep_0	
400-135149-6	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-298564/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-298564/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-298564/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-298558/1-A
Matrix: Water
Analysis Batch: 302768

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298558

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03874	U	0.0593	0.0594	1.00	0.102	pCi/L	03/20/17 11:07	04/11/17 08:46	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*03/20/17 11:07*	*04/11/17 08:46*	*1*

Lab Sample ID: LCS 160-298558/2-A
Matrix: Water
Analysis Batch: 302768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298558

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.929		1.04	1.00	0.110	pCi/L	87	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*

Lab Sample ID: LCSD 160-298558/3-A
Matrix: Water
Analysis Batch: 302768

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 298558

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	8.918		0.948	1.00	0.0961	pCi/L	78	68 - 137	0.51	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-298564/1-A
Matrix: Water
Analysis Batch: 301113

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298564

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3709		0.223	0.225	1.00	0.337	pCi/L	03/20/17 11:53	04/03/17 10:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:49*	*1*
Y Carrier	*82.6*		*40 - 110*	*03/20/17 11:53*	*04/03/17 10:49*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-298564/2-A
Matrix: Water
Analysis Batch: 301113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298564

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.6	13.65		1.45	1.00	0.310	pCi/L	100	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*
Y Carrier	*89.0*		*40 - 110*

Lab Sample ID: LCSD 160-298564/3-A
Matrix: Water
Analysis Batch: 301113

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 298564

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.6	15.58		1.64	1.00	0.305	pCi/L	114	56 - 140	0.63	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.4*		*40 - 110*
Y Carrier	*83.0*		*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: Rick Hagendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63822-23627.1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Background	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-135149 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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N	N		
MW-100	3-13-17	1012	G	Water			X	X	X	X	X	X		
MW-107	3-13-17	1138	G	Water			X	X	X	X	X	X		
MW-108	3-13-17	1336	G	Water			X	X	X	X	X	X		
MW-306	3-13-17	1733	G	Water			X	X	X	X	X	X		
MW-307	3-13-17	1622	G	Water			X	X	X	X	X	X		
Dup-01	3-13-17	1236	G	water			X	X	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: [signature]	Date/Time: 3-14-17 ~~1545~~ 1445	Company: RDH Env.	Received by:	Date/Time:	Company
Relinquished by: Brenda Hagendorfer	Date/Time: 3-14-17 1526	Company: RDH Env	Received by: [signature]	Date/Time: 3-14-17 1526	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: 0.0, 5.8°C [signature]

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135149-2
SDG Number: Background

Login Number: 135149
List Number: 1
Creator: Franklin, Justin H

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	0.0, 5.8°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135149-2
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135184-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
4/6/2017 10:51:07 AM

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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 21
Chronicle 22
QC Association 26
QC Sample Results 30
Chain of Custody 39
Receipt Checklists 40
Certification Summary 41

Job ID: 400-135184-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135184-1

Metals
Method(s) 6020: The initial calibration verification (ICV) result for batch 346510 was above the upper control limit for Antimony. Sample results were non-detects, and have been reported as qualified data.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-135184-4) and MW-110 (400-135184-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-135184-4), MW-110 (400-135184-8) and (400-135225-A-1 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-103 (400-135184-3), MW-104 (400-135184-4) and MW-110 (400-135184-8). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The method blank for analytical batch 346953 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than the practical quantitation limit (PQL); therefore, re-analysis of samples was not performed.

Method(s) SM 4500 SO4 E: The method blank for analytical batch 347399 contained Sulfate above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-135184-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0095		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.42		0.25	0.13	mg/L	5		6020	Total Recoverable
Mercury	0.000070	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Chloride	5.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-135184-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0090		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.72		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.3	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.81				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-135184-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.070		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.46		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0038	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0027		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Mercury	0.000094	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	82		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	43		15	4.2	mg/L	3		SM 4500 SO4 E	Total/NA
Field pH	5.03				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-135184-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0067		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0013	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	55		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0023	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.019		0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-135184-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0024		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.037		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.011		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00032	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	10		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.0012		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1200		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	150		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.34		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	4.06				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-135184-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0036		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.038		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.63		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	63		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0025		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0040	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	260		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	35		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	20		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-135184-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0097		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.071		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.46		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00059	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0035	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.05				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-135184-7

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-109 (Continued) — Lab Sample ID: 400-135184-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.044	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0039		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0069		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	10	V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-135184-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.046		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	32		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0066		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.012		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0032		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00030	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	4.2		0.50	0.21	mg/L	50		6020	Total Recoverable
Mercury	0.0048		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	620		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	150		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Sulfate	300		260	71	mg/L	51		SM 4500 SO4 E	Total/NA
Field pH	4.86				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-135184-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.038	I	0.050	0.021	mg/L	5		6020	Total Recoverable

Client Sample ID: EB-01 — Lab Sample ID: 400-135184-10

No Detections.

Client Sample ID: DUP-02 — Lab Sample ID: 400-135184-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0036		0.0013	0.00046	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: DUP-02 (Continued) — Lab Sample ID: 400-135184-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.56		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	65		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0028		0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0047	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	270		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	35		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	19		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 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

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 Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135184-1	MW-101	Water	03/14/17 09:44	03/15/17 13:25
400-135184-2	MW-102	Water	03/15/17 12:36	03/15/17 13:25
400-135184-3	MW-103	Water	03/15/17 11:19	03/15/17 13:25
400-135184-4	MW-104	Water	03/14/17 16:32	03/15/17 13:25
400-135184-5	MW-105	Water	03/14/17 14:07	03/15/17 13:25
400-135184-6	MW-106	Water	03/14/17 11:02	03/15/17 13:25
400-135184-7	MW-109	Water	03/14/17 17:45	03/15/17 13:25
400-135184-8	MW-110	Water	03/15/17 09:55	03/15/17 13:25
400-135184-9	FB-01	Water	03/14/17 12:48	03/15/17 13:25
400-135184-10	EB-01	Water	03/14/17 15:25	03/15/17 13:25
400-135184-11	DUP-02	Water	03/14/17 13:07	03/15/17 13:25

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-101

Date Collected: 03/14/17 09:44
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-1

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		03/20/17 09:14	03/20/17 18:05	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:05	5
Barium	**0.0095**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:05	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:05	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:05	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:05	5
Calcium	**0.42**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:05	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:05	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:05	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:05	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:05	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:05	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:05	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:05	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000070**	**I**	0.00020	0.000070	mg/L		03/17/17 09:53	03/21/17 13:41	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			03/19/17 11:56	1
Chloride	**5.5**		2.0	0.60	mg/L			03/24/17 08:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:42	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 14:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.71**				SU			03/14/17 09:44	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-102

Date Collected: 03/15/17 12:36
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-2

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		03/20/17 09:14	03/20/17 18:09	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:09	5
Barium	**0.0090**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:09	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:09	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:09	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:09	5
Calcium	**0.72**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:09	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:09	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:09	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:09	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:09	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:09	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:09	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:09	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		03/17/17 09:53	03/21/17 13:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			03/20/17 13:13	1
Chloride	**5.9**		2.0	0.60	mg/L			03/25/17 07:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/21/17 17:23	1
Sulfate	**3.3**	**I V**	5.0	1.4	mg/L			03/28/17 09:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.81**				SU			03/15/17 12:36	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-103

Date Collected: 03/15/17 11:19
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-3

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		03/20/17 09:14	03/20/17 18:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:14	5
Barium	**0.070**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:14	5
Boron	**0.46**		0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:14	5
Calcium	**4.1**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:14	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:14	5
Lithium	**0.0038**	**I**	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:14	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:14	5
Selenium	**0.0027**		0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:14	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000094**	**I**	0.00020	0.000070	mg/L		03/17/17 09:53	03/21/17 13:53	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**82**		5.0	3.4	mg/L			03/20/17 13:13	1
Chloride	**9.5**		2.0	0.60	mg/L			03/25/17 07:54	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/21/17 17:29	1
Sulfate	**43**		15	4.2	mg/L			03/28/17 09:33	3

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.03**				SU			03/15/17 11:19	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-104
Date Collected: 03/14/17 16:32
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-4
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		03/20/17 09:14	03/20/17 18:18	5
Arsenic	**0.0067**		0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:18	5
Barium	**0.020**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:18	5
Beryllium	**0.0013**	**I**	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:18	5
Calcium	**55**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:18	5
Chromium	**0.0023**	**I**	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:18	5
Cobalt	**0.019**		0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:18	5
Lead	**0.0024**		0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:18	5
Lithium	**0.037**		0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:18	5
Selenium	**0.011**		0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:18	5
Thallium	**0.00032**	**I**	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:18	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**10**		1.0	0.42	mg/L		03/20/17 09:14	03/21/17 11:50	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.000070	mg/L		03/17/17 09:53	03/21/17 13:55	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		5.0	3.4	mg/L			03/19/17 11:56	1
Chloride	**150**		20	6.0	mg/L			03/24/17 10:37	10
Fluoride	**0.34**		0.10	0.032	mg/L			03/20/17 18:48	1
Sulfate	**670**		150	42	mg/L			03/23/17 14:56	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.06**				SU			03/14/17 16:32	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-105

Date Collected: 03/14/17 14:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-5

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		03/20/17 09:14	03/20/17 18:23	5
Arsenic	**0.0036**		0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:23	5
Barium	**0.038**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:23	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:23	5
Boron	**0.63**		0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:23	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:23	5
Calcium	**63**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:23	5
Chromium	**0.0025**		0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:23	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:23	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:23	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:23	5
Molybdenum	**0.0040**	**I**	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:23	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:23	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:23	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		03/17/17 09:53	03/21/17 13:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**260**		5.0	3.4	mg/L			03/19/17 11:56	1
Chloride	**35**		2.0	0.60	mg/L			03/24/17 08:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:50	1
Sulfate	**20**		5.0	1.4	mg/L			03/23/17 14:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.11**				SU			03/14/17 14:07	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-106

Date Collected: 03/14/17 11:02
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-6

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		03/20/17 09:14	03/20/17 18:27	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:27	5
Barium	**0.0097**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:27	5
Boron	**0.071**		0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:27	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:27	5
Calcium	**0.46**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:27	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:27	5
Cobalt	**0.00059**	**I**	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:27	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:27	5
Lithium	**0.0035**	**I**	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:27	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:27	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:27	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:27	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		03/17/17 09:53	03/21/17 13:58	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			03/19/17 11:56	1
Chloride	**4.0**		2.0	0.60	mg/L			03/24/17 08:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:53	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 14:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.05**				SU			03/14/17 11:02	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-109

Date Collected: 03/14/17 17:45
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-7

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		03/20/17 09:14	03/20/17 18:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:54	5
Barium	**0.020**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:54	5
Boron	**0.044**	**I**	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 18:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:54	5
Calcium	**3.1**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:54	5
Cobalt	**0.0039**		0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:54	5
Lithium	**0.0069**		0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:54	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:54	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		03/17/17 09:53	03/21/17 13:59	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**22**		5.0	3.4	mg/L			03/19/17 12:47	1
Chloride	**4.4**		2.0	0.60	mg/L			03/24/17 08:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:56	1
Sulfate	**10**	**V**	5.0	1.4	mg/L			03/23/17 14:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.77**				SU			03/14/17 17:45	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-110
Date Collected: 03/15/17 09:55
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-8
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		03/20/17 09:14	03/20/17 18:59	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 18:59	5
Barium	**0.046**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 18:59	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:59	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 18:59	5
Calcium	**32**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 18:59	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 18:59	5
Cobalt	**0.0066**		0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 18:59	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 18:59	5
Lithium	**0.012**		0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 18:59	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 18:59	5
Selenium	**0.0032**		0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 18:59	5
Thallium	**0.00030**	**I**	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 18:59	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.2**		0.50	0.21	mg/L		03/20/17 09:14	03/21/17 11:56	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0048**		0.00020	0.000070	mg/L		03/17/17 09:53	03/21/17 14:00	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**		5.0	3.4	mg/L			03/20/17 13:13	1
Chloride	**150**		20	6.0	mg/L			03/25/17 08:39	10
Fluoride	0.032	U	0.10	0.032	mg/L			03/21/17 17:52	1
Sulfate	**300**		260	71	mg/L			03/28/17 09:33	51

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.86**				SU			03/15/17 09:55	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: FB-01
Date Collected: 03/14/17 12:48
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-9
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		03/20/17 09:14	03/20/17 19:03	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 19:03	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 19:03	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 19:03	5
Boron	**0.038**	**I**	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 19:03	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 19:03	5
Calcium	0.13	U	0.25	0.13	mg/L		03/20/17 09:14	03/20/17 19:03	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 19:03	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 19:03	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 19:03	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 19:03	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 19:03	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 19:03	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 19:03	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		03/17/17 09:53	03/21/17 14:01	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			03/19/17 12:47	1
Chloride	0.60	U	2.0	0.60	mg/L			03/24/17 08:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 18:58	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 14:01	1

Client Sample ID: EB-01

Date Collected: 03/14/17 15:25
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-10

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		03/20/17 09:14	03/20/17 19:08	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 19:08	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 19:08	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 19:08	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 19:08	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 19:08	5
Calcium	0.13	U	0.25	0.13	mg/L		03/20/17 09:14	03/20/17 19:08	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 19:08	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 19:08	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 19:08	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 19:08	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 19:08	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 19:08	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 19:08	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		03/17/17 09:53	03/21/17 14:03	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			03/19/17 12:47	1
Chloride	0.60	U	2.0	0.60	mg/L			03/24/17 08:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 19:02	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/23/17 14:01	1

Client Sample ID: DUP-02

Date Collected: 03/14/17 13:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-11

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		03/20/17 09:14	03/20/17 19:12	5
Arsenic	**0.0036**		0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 19:12	5
Barium	**0.040**		0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 19:12	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 19:12	5
Boron	**0.56**		0.050	0.021	mg/L		03/20/17 09:14	03/20/17 19:12	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 19:12	5
Calcium	**65**		0.25	0.13	mg/L		03/20/17 09:14	03/20/17 19:12	5
Chromium	**0.0028**		0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 19:12	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 19:12	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 19:12	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 19:12	5
Molybdenum	**0.0047**	**I**	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 19:12	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 19:12	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 19:12	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		03/17/17 09:53	03/21/17 14:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**270**		5.0	3.4	mg/L			03/19/17 12:47	1
Chloride	**35**		2.0	0.60	mg/L			03/24/17 08:40	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/20/17 19:04	1
Sulfate	**19**		5.0	1.4	mg/L			03/23/17 14:01	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 03/14/17 09:44
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:05	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346308	03/19/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:38	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/14/17 09:44	BWS	TAL PEN

Client Sample ID: MW-102
Date Collected: 03/15/17 12:36
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:09	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346356	03/20/17 13:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347123	03/25/17 07:54	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346643	03/21/17 17:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347399	03/28/17 09:09	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/15/17 12:36	BWS	TAL PEN

Client Sample ID: MW-103
Date Collected: 03/15/17 11:19
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:14	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346356	03/20/17 13:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347123	03/25/17 07:54	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346643	03/21/17 17:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		3	347399	03/28/17 09:33	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/15/17 11:19	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: MW-104

Date Collected: 03/14/17 16:32
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:18	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	100	346660	03/21/17 11:50	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346308	03/19/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	347044	03/24/17 10:37	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:48	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	346953	03/23/17 14:56	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/14/17 16:32	BWS	TAL PEN

Client Sample ID: MW-105

Date Collected: 03/14/17 14:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:23	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346308	03/19/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:38	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/14/17 14:07	BWS	TAL PEN

Client Sample ID: MW-106

Date Collected: 03/14/17 11:02
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:27	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:58	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346308	03/19/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:38	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/14/17 11:02	BWS	TAL PEN

Client Sample ID: MW-109

Date Collected: 03/14/17 17:45
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:54	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 13:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346309	03/19/17 12:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:40	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:56	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/14/17 17:45	BWS	TAL PEN

Client Sample ID: MW-110

Date Collected: 03/15/17 09:55
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 18:59	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	346660	03/21/17 11:56	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 14:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346356	03/20/17 13:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	347123	03/25/17 08:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346643	03/21/17 17:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		51	347399	03/28/17 09:33	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/15/17 09:55	BWS	TAL PEN

Client Sample ID: FB-01

Date Collected: 03/14/17 12:48
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 19:03	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 14:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346309	03/19/17 12:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:40	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 18:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 1

Client Sample ID: EB-01

Date Collected: 03/14/17 15:25
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 19:08	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 14:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346309	03/19/17 12:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:40	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 19:02	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN

Client Sample ID: DUP-02

Date Collected: 03/14/17 13:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346387	03/20/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346510	03/20/17 19:12	DRE	TAL PEN
Total/NA	Prep	7470A			346112	03/17/17 09:53	JAP	TAL PEN
Total/NA	Analysis	7470A		1	346608	03/21/17 14:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346309	03/19/17 12:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347044	03/24/17 08:40	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346491	03/20/17 19:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346953	03/23/17 14:01	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 346112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	7470A	
400-135184-2	MW-102	Total/NA	Water	7470A	
400-135184-3	MW-103	Total/NA	Water	7470A	
400-135184-4	MW-104	Total/NA	Water	7470A	
400-135184-5	MW-105	Total/NA	Water	7470A	
400-135184-6	MW-106	Total/NA	Water	7470A	
400-135184-7	MW-109	Total/NA	Water	7470A	
400-135184-8	MW-110	Total/NA	Water	7470A	
400-135184-9	FB-01	Total/NA	Water	7470A	
400-135184-10	EB-01	Total/NA	Water	7470A	
400-135184-11	DUP-02	Total/NA	Water	7470A	
MB 400-346112/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-346112/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135234-I-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-135234-I-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 346387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total Recoverable	Water	3005A	
400-135184-2	MW-102	Total Recoverable	Water	3005A	
400-135184-3	MW-103	Total Recoverable	Water	3005A	
400-135184-4	MW-104	Total Recoverable	Water	3005A	
400-135184-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-135184-5	MW-105	Total Recoverable	Water	3005A	
400-135184-6	MW-106	Total Recoverable	Water	3005A	
400-135184-7	MW-109	Total Recoverable	Water	3005A	
400-135184-8	MW-110	Total Recoverable	Water	3005A	
400-135184-8 - DL	MW-110	Total Recoverable	Water	3005A	
400-135184-9	FB-01	Total Recoverable	Water	3005A	
400-135184-10	EB-01	Total Recoverable	Water	3005A	
400-135184-11	DUP-02	Total Recoverable	Water	3005A	
MB 400-346387/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-346387/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135149-C-1-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-135149-C-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 346510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total Recoverable	Water	6020	346387
400-135184-2	MW-102	Total Recoverable	Water	6020	346387
400-135184-3	MW-103	Total Recoverable	Water	6020	346387
400-135184-4	MW-104	Total Recoverable	Water	6020	346387
400-135184-5	MW-105	Total Recoverable	Water	6020	346387
400-135184-6	MW-106	Total Recoverable	Water	6020	346387
400-135184-7	MW-109	Total Recoverable	Water	6020	346387
400-135184-8	MW-110	Total Recoverable	Water	6020	346387
400-135184-9	FB-01	Total Recoverable	Water	6020	346387
400-135184-10	EB-01	Total Recoverable	Water	6020	346387
400-135184-11	DUP-02	Total Recoverable	Water	6020	346387
MB 400-346387/1-A ^5	Method Blank	Total Recoverable	Water	6020	346387
LCS 400-346387/2-A	Lab Control Sample	Total Recoverable	Water	6020	346387

Metals (Continued)

Analysis Batch: 346510 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135149-C-1-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	346387
400-135149-C-1-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	346387

Analysis Batch: 346608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	7470A	346112
400-135184-2	MW-102	Total/NA	Water	7470A	346112
400-135184-3	MW-103	Total/NA	Water	7470A	346112
400-135184-4	MW-104	Total/NA	Water	7470A	346112
400-135184-5	MW-105	Total/NA	Water	7470A	346112
400-135184-6	MW-106	Total/NA	Water	7470A	346112
400-135184-7	MW-109	Total/NA	Water	7470A	346112
400-135184-8	MW-110	Total/NA	Water	7470A	346112
400-135184-9	FB-01	Total/NA	Water	7470A	346112
400-135184-10	EB-01	Total/NA	Water	7470A	346112
400-135184-11	DUP-02	Total/NA	Water	7470A	346112
MB 400-346112/14-A	Method Blank	Total/NA	Water	7470A	346112
LCS 400-346112/15-A	Lab Control Sample	Total/NA	Water	7470A	346112
400-135234-I-1-B MS	Matrix Spike	Total/NA	Water	7470A	346112
400-135234-I-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	346112

Analysis Batch: 346660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-4 - DL	MW-104	Total Recoverable	Water	6020	346387
400-135184-8 - DL	MW-110	Total Recoverable	Water	6020	346387
MB 400-346387/1-A ^5	Method Blank	Total Recoverable	Water	6020	346387
LCS 400-346387/2-A	Lab Control Sample	Total Recoverable	Water	6020	346387

General Chemistry

Analysis Batch: 346308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	SM 2540C	
400-135184-4	MW-104	Total/NA	Water	SM 2540C	
400-135184-5	MW-105	Total/NA	Water	SM 2540C	
400-135184-6	MW-106	Total/NA	Water	SM 2540C	
MB 400-346308/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346308/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135184-1 DU	MW-101	Total/NA	Water	SM 2540C	

Analysis Batch: 346309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-7	MW-109	Total/NA	Water	SM 2540C	
400-135184-9	FB-01	Total/NA	Water	SM 2540C	
400-135184-10	EB-01	Total/NA	Water	SM 2540C	
400-135184-11	DUP-02	Total/NA	Water	SM 2540C	
MB 400-346309/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346309/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135184-7 DU	MW-109	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 346356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-2	MW-102	Total/NA	Water	SM 2540C	
400-135184-3	MW-103	Total/NA	Water	SM 2540C	
400-135184-8	MW-110	Total/NA	Water	SM 2540C	
MB 400-346356/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346356/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135225-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 346491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	SM 4500 F C	
400-135184-4	MW-104	Total/NA	Water	SM 4500 F C	
400-135184-5	MW-105	Total/NA	Water	SM 4500 F C	
400-135184-6	MW-106	Total/NA	Water	SM 4500 F C	
400-135184-7	MW-109	Total/NA	Water	SM 4500 F C	
400-135184-9	FB-01	Total/NA	Water	SM 4500 F C	
400-135184-10	EB-01	Total/NA	Water	SM 4500 F C	
400-135184-11	DUP-02	Total/NA	Water	SM 4500 F C	
MB 400-346491/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-346491/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135080-A-17 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-135080-A-17 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-135184-1 DU	MW-101	Total/NA	Water	SM 4500 F C	

Analysis Batch: 346643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-2	MW-102	Total/NA	Water	SM 4500 F C	
400-135184-3	MW-103	Total/NA	Water	SM 4500 F C	
400-135184-8	MW-110	Total/NA	Water	SM 4500 F C	
MB 400-346643/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-346643/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135184-2 MS	MW-102	Total/NA	Water	SM 4500 F C	
400-135184-2 MSD	MW-102	Total/NA	Water	SM 4500 F C	
400-135206-A-6 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 346953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-135184-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-135184-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-135184-6	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-135184-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-135184-9	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-135184-10	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-135184-11	DUP-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-346953/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-346953/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-346953/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135243-I-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135243-I-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 347044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-135184-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-135184-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-135184-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-135184-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-135184-9	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-135184-10	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-135184-11	DUP-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-347044/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347044/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347044/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135149-A-5 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135149-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 347123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-135184-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-135184-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
MB 400-347123/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347123/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347123/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135225-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135225-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 347399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-135184-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-135184-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
MB 400-347399/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347399/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347399/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135243-I-9 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135243-I-9 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 348261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	Field Sampling	
400-135184-2	MW-102	Total/NA	Water	Field Sampling	
400-135184-3	MW-103	Total/NA	Water	Field Sampling	
400-135184-4	MW-104	Total/NA	Water	Field Sampling	
400-135184-5	MW-105	Total/NA	Water	Field Sampling	
400-135184-6	MW-106	Total/NA	Water	Field Sampling	
400-135184-7	MW-109	Total/NA	Water	Field Sampling	
400-135184-8	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-346387/1-A ^5
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/20/17 09:14	03/20/17 16:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/20/17 09:14	03/20/17 16:37	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/20/17 09:14	03/20/17 16:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 16:37	5
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/20/17 16:37	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/20/17 09:14	03/20/17 16:37	5
Calcium	0.13	U	0.25	0.13	mg/L		03/20/17 09:14	03/20/17 16:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/20/17 09:14	03/20/17 16:37	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/20/17 09:14	03/20/17 16:37	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/20/17 09:14	03/20/17 16:37	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/20/17 09:14	03/20/17 16:37	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/20/17 09:14	03/20/17 16:37	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/20/17 09:14	03/20/17 16:37	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/20/17 09:14	03/20/17 16:37	5

Lab Sample ID: MB 400-346387/1-A ^5
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		03/20/17 09:14	03/21/17 11:36	5

Lab Sample ID: LCS 400-346387/2-A
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0558		mg/L		112	80 - 120
Arsenic	0.0500	0.0496		mg/L		99	80 - 120
Barium	0.0500	0.0502		mg/L		100	80 - 120
Beryllium	0.0500	0.0515		mg/L		103	80 - 120
Boron	0.100	0.0989		mg/L		99	80 - 120
Cadmium	0.0500	0.0526		mg/L		105	80 - 120
Calcium	5.00	5.17		mg/L		103	80 - 120
Chromium	0.0500	0.0507		mg/L		101	80 - 120
Cobalt	0.0500	0.0479		mg/L		96	80 - 120
Lead	0.0500	0.0524		mg/L		105	80 - 120
Lithium	0.0500	0.0521		mg/L		104	80 - 120
Molybdenum	0.100	0.100		mg/L		100	80 - 120
Selenium	0.0500	0.0507		mg/L		101	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: LCS 400-346387/2-A
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0553		mg/L		111	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-346387/2-A
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.0500	0.0524		mg/L		105	80 - 120
Beryllium	0.0500	0.0535		mg/L		107	80 - 120
Boron	0.100	0.106		mg/L		106	80 - 120
Cadmium	0.0500	0.0525		mg/L		105	80 - 120
Calcium	5.00	4.99		mg/L		100	80 - 120
Chromium	0.0500	0.0486		mg/L		97	80 - 120
Cobalt	0.0500	0.0479		mg/L		96	80 - 120
Lead	0.0500	0.0511		mg/L		102	80 - 120
Lithium	0.0500	0.0520		mg/L		104	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Selenium	0.0500	0.0528		mg/L		106	80 - 120
Thallium	0.0100	0.0105		mg/L		105	80 - 120

Lab Sample ID: 400-135149-C-1-C MS ^5
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00069	I	0.0500	0.0512		mg/L		101	75 - 125
Barium	0.015		0.0500	0.0675		mg/L		104	75 - 125
Beryllium	0.00034	U	0.0500	0.0536		mg/L		107	75 - 125
Boron	0.021	U	0.100	0.123		mg/L		123	75 - 125
Cadmium	0.00034	U	0.0500	0.0534		mg/L		107	75 - 125
Calcium	0.78		5.00	5.97		mg/L		104	75 - 125
Chromium	0.0011	U	0.0500	0.0521		mg/L		104	75 - 125
Cobalt	0.00048	I	0.0500	0.0496		mg/L		98	75 - 125
Lead	0.00035	U	0.0500	0.0475		mg/L		95	75 - 125
Lithium	0.0032	U	0.0500	0.0526		mg/L		105	75 - 125
Molybdenum	0.0042	I	0.100	0.109		mg/L		105	75 - 125
Selenium	0.0023		0.0500	0.0558		mg/L		107	75 - 125
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125

Lab Sample ID: 400-135149-C-1-D MSD ^5
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00069	I	0.0500	0.0512		mg/L		101	75 - 125	0	20
Barium	0.015		0.0500	0.0667		mg/L		103	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0534		mg/L		107	75 - 125	0	20
Boron	0.021	U	0.100	0.120		mg/L		120	75 - 125	2	20
Cadmium	0.00034	U	0.0500	0.0528		mg/L		106	75 - 125	1	20
Calcium	0.78		5.00	6.02		mg/L		105	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0522		mg/L		104	75 - 125	0	20
Cobalt	0.00048	I	0.0500	0.0499		mg/L		99	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0472		mg/L		94	75 - 125	0	20
Lithium	0.0032	U	0.0500	0.0544		mg/L		109	75 - 125	3	20
Molybdenum	0.0042	I	0.100	0.104		mg/L		100	75 - 125	5	20
Selenium	0.0023		0.0500	0.0522		mg/L		100	75 - 125	7	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-135149-C-1-D MSD ^5
Matrix: Water
Analysis Batch: 346510

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 346387

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-346112/14-A
Matrix: Water
Analysis Batch: 346608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346112

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/17/17 09:53	03/21/17 13:31	1

Lab Sample ID: LCS 400-346112/15-A
Matrix: Water
Analysis Batch: 346608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346112

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00109		mg/L		108	80 - 120

Lab Sample ID: 400-135234-I-1-B MS
Matrix: Water
Analysis Batch: 346608

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 346112

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00178		mg/L		88	80 - 120

Lab Sample ID: 400-135234-I-1-C MSD
Matrix: Water
Analysis Batch: 346608

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 346112

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	0.00165		mg/L		82	80 - 120	8	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-346308/1
Matrix: Water
Analysis Batch: 346308

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			03/19/17 11:56	1

Lab Sample ID: LCS 400-346308/2
Matrix: Water
Analysis Batch: 346308

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	244		mg/L		83	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-135184-1 DU
Matrix: Water
Analysis Batch: 346308

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3.4	U	3.4	U	mg/L		NC	5

Lab Sample ID: MB 400-346309/1
Matrix: Water
Analysis Batch: 346309

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			03/19/17 12:47	1

Lab Sample ID: LCS 400-346309/2
Matrix: Water
Analysis Batch: 346309

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	266		mg/L		91	78 - 122

Lab Sample ID: 400-135184-7 DU
Matrix: Water
Analysis Batch: 346309

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	22		22.0		mg/L		0	5

Lab Sample ID: MB 400-346356/1
Matrix: Water
Analysis Batch: 346356

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			03/20/17 13:13	1

Lab Sample ID: LCS 400-346356/2
Matrix: Water
Analysis Batch: 346356

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	260		mg/L		89	78 - 122

Lab Sample ID: 400-135225-A-4 DU
Matrix: Water
Analysis Batch: 346356

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	310		304		mg/L		0.7	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-347044/6
Matrix: Water
Analysis Batch: 347044

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/24/17 08:04	1

Lab Sample ID: LCS 400-347044/7
Matrix: Water
Analysis Batch: 347044

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	31.4		mg/L		105	90 - 110

Lab Sample ID: MRL 400-347044/3
Matrix: Water
Analysis Batch: 347044

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	2.08		mg/L		104	50 - 150

Lab Sample ID: 400-135149-A-5 MS
Matrix: Water
Analysis Batch: 347044

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	4.1		10.0	15.3		mg/L		112	73 - 120

Lab Sample ID: 400-135149-A-5 MSD
Matrix: Water
Analysis Batch: 347044

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	4.1		10.0	15.2		mg/L		111	73 - 120	1	8

Lab Sample ID: MB 400-347123/6
Matrix: Water
Analysis Batch: 347123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/25/17 07:16	1

Lab Sample ID: LCS 400-347123/7
Matrix: Water
Analysis Batch: 347123

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	30.6		mg/L		102	90 - 110

Lab Sample ID: MRL 400-347123/3
Matrix: Water
Analysis Batch: 347123

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	2.15		mg/L		108	50 - 150

Lab Sample ID: 400-135225-A-1 MS
Matrix: Water
Analysis Batch: 347123

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	4.3		10.0	15.7		mg/L		114	73 - 120		

Lab Sample ID: 400-135225-A-1 MSD
Matrix: Water
Analysis Batch: 347123

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	4.3		10.0	15.5		mg/L		112	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-346491/4
Matrix: Water
Analysis Batch: 346491

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			03/20/17 18:05	1

Lab Sample ID: LCS 400-346491/3
Matrix: Water
Analysis Batch: 346491

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	4.05		mg/L		101	90 - 110		

Lab Sample ID: 400-135080-A-17 MS
Matrix: Water
Analysis Batch: 346491

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	0.040	I	1.00	1.06		mg/L		102	75 - 125		

Lab Sample ID: 400-135080-A-17 MSD
Matrix: Water
Analysis Batch: 346491

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	0.040	I	1.00	1.02		mg/L		98	75 - 125	4	4

Lab Sample ID: 400-135184-1 DU
Matrix: Water
Analysis Batch: 346491

Client Sample ID: MW-101
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 F C - Fluoride (Continued)

Lab Sample ID: MB 400-346643/3
Matrix: Water
Analysis Batch: 346643

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			03/21/17 17:15	1

Lab Sample ID: LCS 400-346643/4
Matrix: Water
Analysis Batch: 346643

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	4.05		mg/L		101	90 - 110

Lab Sample ID: 400-135184-2 MS
Matrix: Water
Analysis Batch: 346643

Client Sample ID: MW-102
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	1.04		mg/L		104	75 - 125

Lab Sample ID: 400-135184-2 MSD
Matrix: Water
Analysis Batch: 346643

Client Sample ID: MW-102
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	1.02		mg/L		102	75 - 125	2	4

Lab Sample ID: 400-135206-A-6 DU
Matrix: Water
Analysis Batch: 346643

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.79		0.790		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-346953/6
Matrix: Water
Analysis Batch: 346953

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.51	I	5.0	1.4	mg/L			03/23/17 12:15	1

Lab Sample ID: LCS 400-346953/7
Matrix: Water
Analysis Batch: 346953

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

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-346953/3
Matrix: Water
Analysis Batch: 346953

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: 400-135243-I-2 MS
Matrix: Water
Analysis Batch: 346953

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	1.4	U	10.0	9.77	V	mg/L		98	77 - 128		

Lab Sample ID: 400-135243-I-2 MSD
Matrix: Water
Analysis Batch: 346953

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	1.4	U	10.0	10.1	V	mg/L		101	77 - 128	4	5

Lab Sample ID: MB 400-347399/6
Matrix: Water
Analysis Batch: 347399

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.17	I	5.0	1.4	mg/L			03/28/17 09:09	1

Lab Sample ID: LCS 400-347399/7
Matrix: Water
Analysis Batch: 347399

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 400-347399/3
Matrix: Water
Analysis Batch: 347399

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	6.18		mg/L		124	50 - 150		

Lab Sample ID: 400-135243-I-9 MS
Matrix: Water
Analysis Batch: 347399

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	2.5	I V	10.0	10.7	V	mg/L		82	77 - 128		

Lab Sample ID: 400-135243-I-9 MSD
Matrix: Water
Analysis Batch: 347399

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	2.5	I V	10.0	10.4	V	mg/L		79	77 - 128	3	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: Rice Hagendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63823-23628.1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Landfill 1	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-135184 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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	N	N	D	N	N		
MW-101	3-14-17	0944	G	Water			X	X	X	X	X	X		
MW-102	3-15-17	1236	G	Water										
MW-103	3-15-17	1119	G	Water										
MW-104	3-14-17	1632	G	Water										
MW-105	3-14-17	1407	G	Water										
MW-106	3-14-17	1102	G	Water										
MW-109	3-14-17	1745	G	Water										
MW-110	3-15-17	0955	G	Water										
FB-01	3-14-17	1248	G	water										
EB-01	3-14-17	1525	G	water										
DUP-02	3-14-17	1307	G	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) LEVEL IV

Special Instructions/QC Requirements: LEVEL IV

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3-15-17 1255	RJH ENV.			
2	B. Hagendorfer	3-15-17 1325	RJH ENV	NRC	3-15-17 1325	JTA
3	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: 0.0, 0.0, 6.0°C IR-7

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135184-1
SDG Number: Landfill 1

Login Number: 135184
List Number: 1
Creator: Chandler, Rebecca R

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	0.0, 0.0, 0.0 °C IR2
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?	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 Plant Crist

TestAmerica Job ID: 400-135184-1
SDG: Landfill 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135184-2
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/17/2017 6:11:04 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-135184-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135184-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-298825: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-298825. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-298803: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-298803. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-2
SDG: Landfill 1

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-2
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135184-1	MW-101	Water	03/14/17 09:44	03/15/17 13:25
400-135184-2	MW-102	Water	03/15/17 12:36	03/15/17 13:25
400-135184-3	MW-103	Water	03/15/17 11:19	03/15/17 13:25
400-135184-4	MW-104	Water	03/14/17 16:32	03/15/17 13:25
400-135184-5	MW-105	Water	03/14/17 14:07	03/15/17 13:25
400-135184-6	MW-106	Water	03/14/17 11:02	03/15/17 13:25
400-135184-7	MW-109	Water	03/14/17 17:45	03/15/17 13:25
400-135184-8	MW-110	Water	03/15/17 09:55	03/15/17 13:25
400-135184-9	FB-01	Water	03/14/17 12:48	03/15/17 13:25
400-135184-10	EB-01	Water	03/14/17 15:25	03/15/17 13:25
400-135184-11	DUP-02	Water	03/14/17 13:07	03/15/17 13:25

Client Sample ID: MW-101

Date Collected: 03/14/17 09:44
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-1

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	0.334		0.107	0.111	1.00	0.0927	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.677		0.259	0.266	1.00	0.355	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*87.9*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	1.01		0.280	0.288	5.00	0.355	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-102

Date Collected: 03/15/17 12:36
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-2

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	0.417		0.117	0.123	1.00	0.0927	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.988		0.287	0.301	1.00	0.366	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*87.9*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	1.41		0.310	0.325	5.00	0.366	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-103

Date Collected: 03/15/17 11:19
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-3

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	2.88		0.278	0.380	1.00	0.100	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.22		0.464	0.605	1.00	0.357	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*86.0*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	7.10		0.541	0.714	5.00	0.357	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-104

Date Collected: 03/14/17 16:32
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-4

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	2.00		0.243	0.303	1.00	0.0926	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	13.5		0.791	1.48	1.00	0.387	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*88.2*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	15.5		0.827	1.51	5.00	0.387	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-105

Date Collected: 03/14/17 14:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-5

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	0.896		0.169	0.187	1.00	0.0969	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.39		0.307	0.333	1.00	0.341	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*89.0*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	2.28		0.351	0.382	5.00	0.341	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-106

Date Collected: 03/14/17 11:02
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-6

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	0.236		0.0926	0.0950	1.00	0.0940	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.653		0.255	0.262	1.00	0.351	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*87.5*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	0.889		0.271	0.278	5.00	0.351	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-109

Date Collected: 03/14/17 17:45
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-7

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	0.700		0.152	0.164	1.00	0.106	pCi/L	03/21/17 10:12	04/12/17 07:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.04		0.308	0.323	1.00	0.405	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*88.2*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	1.74		0.344	0.362	5.00	0.405	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-110

Date Collected: 03/15/17 09:55
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-8

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	2.90		0.306	0.402	1.00	0.102	pCi/L	03/21/17 10:12	04/12/17 07:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:10*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.57		0.436	0.546	1.00	0.341	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*89.7*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	6.46		0.533	0.678	5.00	0.341	pCi/L		04/13/17 11:17	1

Client Sample ID: FB-01

Date Collected: 03/14/17 12:48
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-9

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	0.0515	U	0.0621	0.0623	1.00	0.101	pCi/L	03/21/17 10:12	04/12/17 07:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:10*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0890	U	0.187	0.188	1.00	0.354	pCi/L	03/21/17 11:45	04/03/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*1*
Y Carrier	*91.6*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:01*	*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	-0.0375	U	0.197	0.198	5.00	0.354	pCi/L		04/13/17 11:17	1

Client Sample ID: EB-01

Date Collected: 03/14/17 15:25
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-10

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	0.0394	U	0.0623	0.0624	1.00	0.108	pCi/L	03/21/17 10:12	04/12/17 07:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:10*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.256	U	0.210	0.212	1.00	0.415	pCi/L	03/21/17 11:45	04/03/17 15:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:00*	*1*
Y Carrier	*90.5*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:00*	*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	-0.217	U	0.219	0.221	5.00	0.415	pCi/L		04/13/17 11:17	1

Client Sample ID: DUP-02

Date Collected: 03/14/17 13:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-11

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	0.948		0.179	0.198	1.00	0.104	pCi/L	03/21/17 10:12	04/12/17 07:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:10*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.42		0.303	0.330	1.00	0.335	pCi/L	03/21/17 11:45	04/03/17 15:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:00*	*1*
Y Carrier	*87.1*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:00*	*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		0.352	0.385	5.00	0.335	pCi/L		04/13/17 11:17	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-101
Date Collected: 03/14/17 09:44
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-102
Date Collected: 03/15/17 12:36
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-103
Date Collected: 03/15/17 11:19
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-104
Date Collected: 03/14/17 16:32
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-105
Date Collected: 03/14/17 14:07
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-106
Date Collected: 03/14/17 11:02
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-109
Date Collected: 03/14/17 17:45
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 07:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-110
Date Collected: 03/15/17 09:55
Date Received: 03/15/17 13:25

Lab Sample ID: 400-135184-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303161	04/12/17 07:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-2
SDG: Landfill 1

Client Sample ID: FB-01

Lab Sample ID: 400-135184-9

Date Collected: 03/14/17 12:48
Matrix: Water
Date Received: 03/15/17 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303161	04/12/17 07:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: EB-01

Lab Sample ID: 400-135184-10

Date Collected: 03/14/17 15:25
Matrix: Water
Date Received: 03/15/17 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303161	04/12/17 07:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:00	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: DUP-02

Lab Sample ID: 400-135184-11

Date Collected: 03/14/17 13:07
Matrix: Water
Date Received: 03/15/17 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298803	03/21/17 10:12	MBC	TAL SL
Total/NA	Analysis	9315		1	303161	04/12/17 07:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298825	03/21/17 11:45	MBC	TAL SL
Total/NA	Analysis	9320		1	301114	04/03/17 15:00	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 298803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	PrecSep-21	
400-135184-2	MW-102	Total/NA	Water	PrecSep-21	
400-135184-3	MW-103	Total/NA	Water	PrecSep-21	
400-135184-4	MW-104	Total/NA	Water	PrecSep-21	
400-135184-5	MW-105	Total/NA	Water	PrecSep-21	
400-135184-6	MW-106	Total/NA	Water	PrecSep-21	
400-135184-7	MW-109	Total/NA	Water	PrecSep-21	
400-135184-8	MW-110	Total/NA	Water	PrecSep-21	
400-135184-9	FB-01	Total/NA	Water	PrecSep-21	
400-135184-10	EB-01	Total/NA	Water	PrecSep-21	
400-135184-11	DUP-02	Total/NA	Water	PrecSep-21	
MB 160-298803/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-298803/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-298803/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 298825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135184-1	MW-101	Total/NA	Water	PrecSep_0	
400-135184-2	MW-102	Total/NA	Water	PrecSep_0	
400-135184-3	MW-103	Total/NA	Water	PrecSep_0	
400-135184-4	MW-104	Total/NA	Water	PrecSep_0	
400-135184-5	MW-105	Total/NA	Water	PrecSep_0	
400-135184-6	MW-106	Total/NA	Water	PrecSep_0	
400-135184-7	MW-109	Total/NA	Water	PrecSep_0	
400-135184-8	MW-110	Total/NA	Water	PrecSep_0	
400-135184-9	FB-01	Total/NA	Water	PrecSep_0	
400-135184-10	EB-01	Total/NA	Water	PrecSep_0	
400-135184-11	DUP-02	Total/NA	Water	PrecSep_0	
MB 160-298825/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-298825/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-298825/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-298803/1-A
Matrix: Water
Analysis Batch: 303160

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298803

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1376		0.0782	0.0792	1.00	0.0992	pCi/L	03/21/17 10:12	04/12/17 07:05	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/21/17 10:12*	*04/12/17 07:05*	*1*

Lab Sample ID: LCS 160-298803/2-A
Matrix: Water
Analysis Batch: 303160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298803

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	11.23		1.16	1.00	0.102	pCi/L	99	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.5*		*40 - 110*

Lab Sample ID: LCSD 160-298803/3-A
Matrix: Water
Analysis Batch: 303160

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 298803

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	10.97		1.13	1.00	0.0897	pCi/L	97	68 - 137	0.11	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*95.0*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-298825/1-A
Matrix: Water
Analysis Batch: 301114

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298825

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2905	U	0.239	0.240	1.00	0.379	pCi/L	03/21/17 11:45	04/03/17 15:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:02*	*1*
Y Carrier	*84.9*		*40 - 110*	*03/21/17 11:45*	*04/03/17 15:02*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-298825/2-A
Matrix: Water
Analysis Batch: 301114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298825

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.6	15.36		1.64	1.00	0.426	pCi/L	113	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.5*		*40 - 110*
Y Carrier	*87.5*		*40 - 110*

Lab Sample ID: LCSD 160-298825/3-A
Matrix: Water
Analysis Batch: 301114

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 298825

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.6	15.13		1.62	1.00	0.422	pCi/L	111	56 - 140	0.07	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*95.0*		*40 - 110*
Y Carrier	*86.7*		*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: Rice Hagendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63823-23628.1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Landfill 1	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-135184 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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code				D	N	N	D	N	N		
MW-101	3-14-17	0944	G	Water			X	X	X	X	X	X		
MW-102	3-15-17	1236	G	Water										
MW-103	3-15-17	1119	G	Water										
MW-104	3-14-17	1632	G	Water										
MW-105	3-14-17	1407	G	Water										
MW-106	3-14-17	1102	G	Water										
MW-109	3-14-17	1745	G	Water										
MW-110	3-15-17	0955	G	Water										
FB-01	3-14-17	1248	G	water										
EB-01	3-14-17	1525	G	water										
DUP-02	3-14-17	1307	G	water			RDH	RDH	RDH	RDH	RDH	RDH		H

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) LEVEL IV

Special Instructions/QC Requirements: LEVEL IV

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3-15-17 1255	RDH ENV			
B. Hagendorfer	3-15-17 1325	RDH ENV	RRC	3-15-17 1325	JA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0, 0.0, 0.0°C [illegible]

4/17/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135184-2
SDG Number: Landfill 1

Login Number: 135184
List Number: 1
Creator: Chandler, Rebecca R

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	0.0, 0.0, 0.0 °C IR2
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?	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 Plant Crist

TestAmerica Job ID: 400-135184-2
SDG: Landfill 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135184-2
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135255-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
4/5/2017 3:37:05 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 25
Chain of Custody 33
Receipt Checklists 34
Certification Summary 35

Job ID: 400-135255-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135255-1

Metals

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-135255-2) and MW-308 (400-135255-5). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 347015 recovered above the upper control limit for Lead. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-300 (400-135255-1), MW-303 (400-135255-2), MW-304 (400-135255-3), MW-305 (400-135255-4), MW-308 (400-135255-5), EB-02 (400-135255-6), FB-02 (400-135255-7) and DUP-03 (400-135255-8).

Method(s) 6020: The serial dilution performed for the following sample associated with batch 347015 was outside control limits for Chromium: (400-135255-B-2-B SD)

Method(s) 6020: The post digestion spike % recovery for Lead associated with batch 347015 was outside of control limits.

Method(s) 6020: The native sample and post digestion spike associated with preparation batch 346573 and analytical batch 347015 were performed at the same dilution. Due to the additional level of analyte present in the spiked sample, the concentration of Calcium in the PDS was above the instrument calibration range. The data have been reported and qualified.

General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 347477 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-303 (400-135255-2) and MW-304 (400-135255-3). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 347484 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 method blank for analytical batch 347484 contained Sulfate above reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-135255-2), MW-304 (400-135255-3) and MW-308 (400-135255-5). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The method blank for analytical batch 347514 contained Sulfate 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-135255-1

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
Calcium	0.53		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	48		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.0	V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.82				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-135255-2

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	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.00049	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	78		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00040	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.029		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0079		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00024	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.5		0.25	0.11	mg/L	25		6020	Total Recoverable
Molybdenum - DL	1.6		0.075	0.0043	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	650		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	200		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.16		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.5				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-135255-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00066	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.38		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	78		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0042		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0088		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	65		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-135255-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	250		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.91				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-135255-4

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	0.69		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00044	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.1	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.89				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-135255-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.023		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	62		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0060		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00029	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	4.5		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	420		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	40		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	220		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.12				SU	1		Field Sampling	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 400-135255-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.7	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-135255-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.6	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-135255-8

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	0.72		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: DUP-03 (Continued)

Lab Sample ID: 400-135255-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00044	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	8.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

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

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 Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135255-1	MW-300	Water	03/15/17 14:43	03/16/17 13:05
400-135255-2	MW-303	Water	03/16/17 10:32	03/16/17 13:05
400-135255-3	MW-304	Water	03/15/17 17:37	03/16/17 13:05
400-135255-4	MW-305	Water	03/15/17 16:08	03/16/17 13:05
400-135255-5	MW-308	Water	03/16/17 09:13	03/16/17 13:05
400-135255-6	EB-02	Water	03/16/17 09:52	03/16/17 13:05
400-135255-7	FB-02	Water	03/16/17 09:40	03/16/17 13:05
400-135255-8	DUP-03	Water	03/15/17 15:08	03/16/17 13:05

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 03/15/17 14:43
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-1

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		03/21/17 13:03	03/23/17 12:29	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 12:29	5
Barium	**0.013**		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 12:29	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:29	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:03	03/23/17 12:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:29	5
Calcium	**0.53**		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 12:29	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 12:29	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 12:29	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 12:29	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 12:29	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 12:29	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 12:29	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 12:29	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		03/21/17 09:23	03/27/17 13:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		5.0	3.4	mg/L			03/20/17 14:06	1
Chloride	**48**		2.0	0.60	mg/L			03/28/17 13:05	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/22/17 10:29	1
Sulfate	**5.0**	**V**	5.0	1.4	mg/L			03/28/17 13:11	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.82**				SU			03/15/17 14:43	1

Client Sample ID: MW-303

Date Collected: 03/16/17 10:32
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-2

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		03/21/17 13:03	03/23/17 11:48	5
Arsenic	**0.0015**		0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 11:48	5
Barium	**0.040**		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 11:48	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:48	5
Cadmium	**0.00049**	**I**	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:48	5
Calcium	**78**		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 11:48	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 11:48	5
Cobalt	**0.00040**	**I**	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 11:48	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 11:48	5
Lithium	**0.029**		0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 11:48	5
Selenium	**0.0079**		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 11:48	5
Thallium	**0.00024**	**I**	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 11:48	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.5**		0.25	0.11	mg/L		03/21/17 13:03	03/23/17 14:08	25
Molybdenum	**1.6**		0.075	0.0043	mg/L		03/21/17 13:03	03/23/17 14:08	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		03/21/17 09:23	03/27/17 14:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**650**		5.0	3.4	mg/L			03/21/17 15:52	1
Chloride	**200**		20	6.0	mg/L			03/28/17 14:06	10
Fluoride	**0.16**		0.10	0.032	mg/L			03/22/17 10:31	1
Sulfate	**190**		100	28	mg/L			03/28/17 15:22	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.5**				SU			03/16/17 10:32	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: MW-304

Date Collected: 03/15/17 17:37
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-3

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		03/21/17 13:03	03/23/17 12:34	5
Arsenic	**0.00066**	**I**	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 12:34	5
Barium	**0.018**		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 12:34	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:34	5
Boron	**0.38**		0.050	0.021	mg/L		03/21/17 13:03	03/23/17 12:34	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:34	5
Calcium	**78**		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 12:34	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 12:34	5
Cobalt	**0.0042**		0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 12:34	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 12:34	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 12:34	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 12:34	5
Selenium	**0.0088**		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 12:34	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 12:34	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		03/21/17 09:23	03/27/17 14:05	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**500**		5.0	3.4	mg/L			03/20/17 14:06	1
Chloride	**65**		10	3.0	mg/L			03/28/17 14:05	5
Fluoride	0.032	U	0.10	0.032	mg/L			03/22/17 10:33	1
Sulfate	**250**		100	28	mg/L			03/28/17 14:20	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.91**				SU			03/15/17 17:37	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: MW-305

Date Collected: 03/15/17 16:08
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-4

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		03/21/17 13:03	03/23/17 12:38	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 12:38	5
Barium	**0.018**		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 12:38	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:38	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:03	03/23/17 12:38	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:38	5
Calcium	**0.69**		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 12:38	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 12:38	5
Cobalt	**0.00044**	**I**	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 12:38	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 12:38	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 12:38	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 12:38	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 12:38	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 12:38	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		03/21/17 09:23	03/27/17 14:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			03/20/17 14:06	1
Chloride	**8.1**		2.0	0.60	mg/L			03/28/17 13:05	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/22/17 10:36	1
Sulfate	**2.1**	**I V**	5.0	1.4	mg/L			03/28/17 17:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.89**				SU			03/15/17 16:08	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 03/16/17 09:13
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-5
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		03/21/17 13:03	03/23/17 12:43	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 12:43	5
Barium	**0.023**		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 12:43	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:43	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 12:43	5
Calcium	**62**		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 12:43	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 12:43	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 12:43	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 12:43	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 12:43	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 12:43	5
Selenium	**0.0060**		0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 12:43	5
Thallium	**0.00029**	**I**	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 12:43	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.5**		0.25	0.11	mg/L		03/21/17 13:03	03/23/17 14:12	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		03/21/17 09:23	03/27/17 14:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**420**		5.0	3.4	mg/L			03/21/17 15:52	1
Chloride	**40**		2.0	0.60	mg/L			03/28/17 17:52	1
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			03/22/17 10:38	1
Sulfate	**220**		100	28	mg/L			03/28/17 18:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.12**				SU			03/16/17 09:13	1

Client Sample ID: EB-02

Date Collected: 03/16/17 09:52
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-6

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		03/21/17 13:03	03/23/17 13:45	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 13:45	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 13:45	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:45	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:03	03/23/17 13:45	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:45	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:03	03/23/17 13:45	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 13:45	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 13:45	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 13:45	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 13:45	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 13:45	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 13:45	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 13:45	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		03/21/17 09:23	03/27/17 14:09	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			03/21/17 15:52	1
Chloride	0.60	U	2.0	0.60	mg/L			03/28/17 17:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/22/17 10:41	1
Sulfate	**1.7**	**I V**	5.0	1.4	mg/L			03/28/17 17:41	1

Client Sample ID: FB-02

Date Collected: 03/16/17 09:40
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-7

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		03/21/17 13:03	03/23/17 13:49	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 13:49	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 13:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:49	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:03	03/23/17 13:49	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:49	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:03	03/23/17 13:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 13:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 13:49	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 13:49	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 13:49	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 13:49	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 13:49	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 13:49	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		03/21/17 09:23	03/27/17 14:10	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			03/21/17 15:52	1
Chloride	0.60	U	2.0	0.60	mg/L			03/28/17 17:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/22/17 10:44	1
Sulfate	**1.6**	**I V**	5.0	1.4	mg/L			03/28/17 17:41	1

Client Sample ID: DUP-03

Date Collected: 03/15/17 15:08
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-8

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		03/21/17 13:03	03/23/17 13:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 13:54	5
Barium	**0.018**		0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 13:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:54	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:03	03/23/17 13:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 13:54	5
Calcium	**0.72**		0.25	0.13	mg/L		03/21/17 13:03	03/23/17 13:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 13:54	5
Cobalt	**0.00044**	**I**	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 13:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 13:54	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 13:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 13:54	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 13:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 13:54	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		03/21/17 09:23	03/27/17 14:11	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			03/20/17 15:50	1
Chloride	**8.3**		2.0	0.60	mg/L			03/28/17 13:05	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/23/17 18:08	1
Sulfate	**2.2**	**I V**	5.0	1.4	mg/L			03/28/17 16:46	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

General Chemistry

Qualifier	Qualifier Description
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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-300

Lab Sample ID: 400-135255-1

Date Collected: 03/15/17 14:43

Matrix: Water

Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 12:29	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346357	03/20/17 14:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347477	03/28/17 13:05	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347484	03/28/17 13:11	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/15/17 14:43	BWS	TAL PEN

Client Sample ID: MW-303

Lab Sample ID: 400-135255-2

Date Collected: 03/16/17 10:32

Matrix: Water

Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 11:48	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	347015	03/23/17 14:08	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346571	03/21/17 15:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	347477	03/28/17 14:06	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	347484	03/28/17 15:22	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 10:32	BWS	TAL PEN

Client Sample ID: MW-304

Lab Sample ID: 400-135255-3

Date Collected: 03/15/17 17:37

Matrix: Water

Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 12:34	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346357	03/20/17 14:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	347477	03/28/17 14:05	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	347484	03/28/17 14:20	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/15/17 17:37	BWS	TAL PEN

Client Sample ID: MW-305

Lab Sample ID: 400-135255-4

Date Collected: 03/15/17 16:08

Matrix: Water

Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 12:38	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346357	03/20/17 14:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347477	03/28/17 13:05	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:36	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347514	03/28/17 17:41	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/15/17 16:08	BWS	TAL PEN

Client Sample ID: MW-308

Lab Sample ID: 400-135255-5

Date Collected: 03/16/17 09:13

Matrix: Water

Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 12:43	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	347015	03/23/17 14:12	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346571	03/21/17 15:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347515	03/28/17 17:52	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	347514	03/28/17 18:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 09:13	BWS	TAL PEN

Client Sample ID: EB-02

Lab Sample ID: 400-135255-6

Date Collected: 03/16/17 09:52

Matrix: Water

Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 13:45	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346571	03/21/17 15:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347515	03/28/17 17:52	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:41	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347514	03/28/17 17:41	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

Client Sample ID: FB-02

Lab Sample ID: 400-135255-7

Date Collected: 03/16/17 09:40
Matrix: Water
Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 13:49	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346571	03/21/17 15:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347515	03/28/17 17:52	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346691	03/22/17 10:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347514	03/28/17 17:41	BJB	TAL PEN

Client Sample ID: DUP-03

Lab Sample ID: 400-135255-8

Date Collected: 03/15/17 15:08
Matrix: Water
Date Received: 03/16/17 13:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346573	03/21/17 13:03	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	347015	03/23/17 13:54	DRE	TAL PEN
Total/NA	Prep	7470A			346519	03/21/17 09:23	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346471	03/20/17 15:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347477	03/28/17 13:05	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347514	03/28/17 16:46	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 346519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	7470A	
400-135255-2	MW-303	Total/NA	Water	7470A	
400-135255-3	MW-304	Total/NA	Water	7470A	
400-135255-4	MW-305	Total/NA	Water	7470A	
400-135255-5	MW-308	Total/NA	Water	7470A	
400-135255-6	EB-02	Total/NA	Water	7470A	
400-135255-7	FB-02	Total/NA	Water	7470A	
400-135255-8	DUP-03	Total/NA	Water	7470A	
MB 400-346519/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-346519/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135255-1 MS	MW-300	Total/NA	Water	7470A	
400-135255-1 MSD	MW-300	Total/NA	Water	7470A	

Prep Batch: 346573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total Recoverable	Water	3005A	
400-135255-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-135255-2	MW-303	Total Recoverable	Water	3005A	
400-135255-3	MW-304	Total Recoverable	Water	3005A	
400-135255-4	MW-305	Total Recoverable	Water	3005A	
400-135255-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-135255-5	MW-308	Total Recoverable	Water	3005A	
400-135255-6	EB-02	Total Recoverable	Water	3005A	
400-135255-7	FB-02	Total Recoverable	Water	3005A	
400-135255-8	DUP-03	Total Recoverable	Water	3005A	
MB 400-346573/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-346573/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135255-2 MS	MW-303	Total Recoverable	Water	3005A	
400-135255-2 MSD	MW-303	Total Recoverable	Water	3005A	

Analysis Batch: 347015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total Recoverable	Water	6020	346573
400-135255-2	MW-303	Total Recoverable	Water	6020	346573
400-135255-2 - DL	MW-303	Total Recoverable	Water	6020	346573
400-135255-3	MW-304	Total Recoverable	Water	6020	346573
400-135255-4	MW-305	Total Recoverable	Water	6020	346573
400-135255-5	MW-308	Total Recoverable	Water	6020	346573
400-135255-5 - DL	MW-308	Total Recoverable	Water	6020	346573
400-135255-6	EB-02	Total Recoverable	Water	6020	346573
400-135255-7	FB-02	Total Recoverable	Water	6020	346573
400-135255-8	DUP-03	Total Recoverable	Water	6020	346573
MB 400-346573/1-A ^5	Method Blank	Total Recoverable	Water	6020	346573
LCS 400-346573/2-A	Lab Control Sample	Total Recoverable	Water	6020	346573
400-135255-2 MS	MW-303	Total Recoverable	Water	6020	346573
400-135255-2 MSD	MW-303	Total Recoverable	Water	6020	346573

Analysis Batch: 347283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	7470A	346519
400-135255-2	MW-303	Total/NA	Water	7470A	346519

Metals (Continued)

Analysis Batch: 347283 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-3	MW-304	Total/NA	Water	7470A	346519
400-135255-4	MW-305	Total/NA	Water	7470A	346519
400-135255-5	MW-308	Total/NA	Water	7470A	346519
400-135255-6	EB-02	Total/NA	Water	7470A	346519
400-135255-7	FB-02	Total/NA	Water	7470A	346519
400-135255-8	DUP-03	Total/NA	Water	7470A	346519
MB 400-346519/14-A	Method Blank	Total/NA	Water	7470A	346519
LCS 400-346519/15-A	Lab Control Sample	Total/NA	Water	7470A	346519
400-135255-1 MS	MW-300	Total/NA	Water	7470A	346519
400-135255-1 MSD	MW-300	Total/NA	Water	7470A	346519

General Chemistry

Analysis Batch: 346357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	SM 2540C	
400-135255-3	MW-304	Total/NA	Water	SM 2540C	
400-135255-4	MW-305	Total/NA	Water	SM 2540C	
MB 400-346357/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346357/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135244-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 346471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-8	DUP-03	Total/NA	Water	SM 2540C	
MB 400-346471/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346471/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135244-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 346571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-2	MW-303	Total/NA	Water	SM 2540C	
400-135255-5	MW-308	Total/NA	Water	SM 2540C	
400-135255-6	EB-02	Total/NA	Water	SM 2540C	
400-135255-7	FB-02	Total/NA	Water	SM 2540C	
MB 400-346571/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346571/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135291-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 346691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	SM 4500 F C	
400-135255-2	MW-303	Total/NA	Water	SM 4500 F C	
400-135255-3	MW-304	Total/NA	Water	SM 4500 F C	
400-135255-4	MW-305	Total/NA	Water	SM 4500 F C	
400-135255-5	MW-308	Total/NA	Water	SM 4500 F C	
400-135255-6	EB-02	Total/NA	Water	SM 4500 F C	
400-135255-7	FB-02	Total/NA	Water	SM 4500 F C	
MB 400-346691/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-346691/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 346691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135244-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-135244-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-135244-A-16 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 346971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-8	DUP-03	Total/NA	Water	SM 4500 F C	
MB 400-346971/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-346971/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135255-8 MS	DUP-03	Total/NA	Water	SM 4500 F C	
400-135255-8 MSD	DUP-03	Total/NA	Water	SM 4500 F C	
400-135326-A-7 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 347477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-135255-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-135255-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-135255-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-135255-8	DUP-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-347477/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347477/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347477/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135244-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135244-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 347484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-135255-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-135255-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
MB 400-347484/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347484/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347484/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135244-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135244-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 347514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-135255-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-135255-6	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-135255-7	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-135255-8	DUP-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-347514/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347514/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347514/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135291-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135291-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 347515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-135255-6	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-135255-7	FB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-347515/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347515/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347515/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135291-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135291-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 348261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	Field Sampling	
400-135255-2	MW-303	Total/NA	Water	Field Sampling	
400-135255-3	MW-304	Total/NA	Water	Field Sampling	
400-135255-4	MW-305	Total/NA	Water	Field Sampling	
400-135255-5	MW-308	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-346573/1-A ^5
Matrix: Water
Analysis Batch: 347015

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346573

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/21/17 13:03	03/23/17 11:39	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:03	03/23/17 11:39	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:03	03/23/17 11:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:39	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:03	03/23/17 11:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:03	03/23/17 11:39	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:03	03/23/17 11:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:03	03/23/17 11:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:03	03/23/17 11:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:03	03/23/17 11:39	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:03	03/23/17 11:39	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:03	03/23/17 11:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:03	03/23/17 11:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:03	03/23/17 11:39	5

Lab Sample ID: LCS 400-346573/2-A
Matrix: Water
Analysis Batch: 347015

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346573

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0557		mg/L		111	80 - 120
Arsenic	0.0500	0.0528		mg/L		106	80 - 120
Barium	0.0500	0.0523		mg/L		105	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Boron	0.100	0.0990		mg/L		99	80 - 120
Cadmium	0.0500	0.0520		mg/L		104	80 - 120
Calcium	5.00	5.02		mg/L		100	80 - 120
Chromium	0.0500	0.0516		mg/L		103	80 - 120
Cobalt	0.0500	0.0486		mg/L		97	80 - 120
Lead	0.0500	0.0597		mg/L		119	80 - 120
Lithium	0.0500	0.0534		mg/L		107	80 - 120
Molybdenum	0.100	0.102		mg/L		102	80 - 120
Selenium	0.0500	0.0511		mg/L		102	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: 400-135255-2 MS
Matrix: Water
Analysis Batch: 347015

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 346573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0541		mg/L		108	75 - 125
Arsenic	0.0015		0.0500	0.0559		mg/L		109	75 - 125
Barium	0.040		0.0500	0.0930		mg/L		106	75 - 125
Beryllium	0.00034	U	0.0500	0.0533		mg/L		107	75 - 125
Cadmium	0.00049	I	0.0500	0.0545		mg/L		108	75 - 125
Calcium	78		5.00	80.2	J3	mg/L		50	75 - 125
Chromium	0.0011	U	0.0500	0.0484		mg/L		97	75 - 125
Cobalt	0.00040	I	0.0500	0.0534		mg/L		106	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-135255-2 MS
Matrix: Water
Analysis Batch: 347015

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 346573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.00035	U	0.0500	0.0548		mg/L		110	75 - 125
Lithium	0.029		0.0500	0.0818		mg/L		106	75 - 125
Selenium	0.0079		0.0500	0.0603		mg/L		105	75 - 125
Thallium	0.00024	I	0.0100	0.0108		mg/L		106	75 - 125

Lab Sample ID: 400-135255-2 MSD
Matrix: Water
Analysis Batch: 347015

Client Sample ID: MW-303
Prep Type: Total Recoverable
Prep Batch: 346573

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	0.0522		mg/L		104	75 - 125	4	20
Arsenic	0.0015		0.0500	0.0554		mg/L		108	75 - 125	1	20
Barium	0.040		0.0500	0.0924		mg/L		105	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0528		mg/L		106	75 - 125	1	20
Cadmium	0.00049	I	0.0500	0.0517		mg/L		102	75 - 125	5	20
Calcium	78		5.00	79.5	J3	mg/L		36	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0473		mg/L		95	75 - 125	2	20
Cobalt	0.00040	I	0.0500	0.0535		mg/L		106	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0540		mg/L		108	75 - 125	1	20
Lithium	0.029		0.0500	0.0798		mg/L		102	75 - 125	2	20
Selenium	0.0079		0.0500	0.0573		mg/L		99	75 - 125	5	20
Thallium	0.00024	I	0.0100	0.0108		mg/L		105	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-346519/14-A
Matrix: Water
Analysis Batch: 347283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346519

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/21/17 09:23	03/27/17 13:44	1

Lab Sample ID: LCS 400-346519/15-A
Matrix: Water
Analysis Batch: 347283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00107		mg/L		106	80 - 120

Lab Sample ID: 400-135255-1 MS
Matrix: Water
Analysis Batch: 347283

Client Sample ID: MW-300
Prep Type: Total/NA
Prep Batch: 346519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00224		mg/L		111	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-135255-1 MSD
Matrix: Water
Analysis Batch: 347283

Client Sample ID: MW-300
Prep Type: Total/NA
Prep Batch: 346519

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	0.00223		mg/L		111	80 - 120	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-346357/1
Matrix: Water
Analysis Batch: 346357

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			03/20/17 14:06	1

Lab Sample ID: LCS 400-346357/2
Matrix: Water
Analysis Batch: 346357

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	286		mg/L		98	78 - 122

Lab Sample ID: 400-135244-A-8 DU
Matrix: Water
Analysis Batch: 346357

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	970		966		mg/L		0.2	5

Lab Sample ID: MB 400-346471/1
Matrix: Water
Analysis Batch: 346471

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			03/20/17 15:50	1

Lab Sample ID: LCS 400-346471/2
Matrix: Water
Analysis Batch: 346471

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	244		mg/L		83	78 - 122

Lab Sample ID: 400-135244-A-1 DU
Matrix: Water
Analysis Batch: 346471

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	130		132		mg/L		0	5

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-346571/1
Matrix: Water
Analysis Batch: 346571

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			03/21/17 15:52	1

Lab Sample ID: LCS 400-346571/2
Matrix: Water
Analysis Batch: 346571

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	238		mg/L		81	78 - 122

Lab Sample ID: 400-135291-A-1 DU
Matrix: Water
Analysis Batch: 346571

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	490		488		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-347477/6
Matrix: Water
Analysis Batch: 347477

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/28/17 11:49	1

Lab Sample ID: LCS 400-347477/7
Matrix: Water
Analysis Batch: 347477

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	31.4		mg/L		105	90 - 110

Lab Sample ID: MRL 400-347477/3
Matrix: Water
Analysis Batch: 347477

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	1.07	I	mg/L		53	50 - 150

Lab Sample ID: 400-135244-A-11 MS
Matrix: Water
Analysis Batch: 347477

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	49		10.0	53.4	J3	mg/L		46	73 - 120

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-135244-A-11 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 347477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	49		10.0	52.5	J3	mg/L		38	73 - 120	2	8

Lab Sample ID: MB 400-347515/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 347515

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/28/17 16:11	1

Lab Sample ID: LCS 400-347515/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 347515

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 400-347515/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 347515

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.90	I	mg/L		95	50 - 150

Lab Sample ID: 400-135291-A-6 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 347515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	11		10.0	20.8		mg/L		101	73 - 120

Lab Sample ID: 400-135291-A-6 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 347515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	11		10.0	20.4		mg/L		96	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-346691/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 346691

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/22/17 09:25	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-346691/4
Matrix: Water
Analysis Batch: 346691

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	3.98		mg/L		100	90 - 110		

Lab Sample ID: 400-135244-A-11 MS
Matrix: Water
Analysis Batch: 346691

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	0.080	I	1.00	1.10		mg/L		102	75 - 125		

Lab Sample ID: 400-135244-A-11 MSD
Matrix: Water
Analysis Batch: 346691

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	0.080	I	1.00	1.10		mg/L		102	75 - 125	0	4

Lab Sample ID: 400-135244-A-16 DU
Matrix: Water
Analysis Batch: 346691

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.39			0.400		mg/L				3	4

Lab Sample ID: MB 400-346971/3
Matrix: Water
Analysis Batch: 346971

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			03/23/17 17:59	1

Lab Sample ID: LCS 400-346971/4
Matrix: Water
Analysis Batch: 346971

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	4.05		mg/L		101	90 - 110		

Lab Sample ID: 400-135255-8 MS
Matrix: Water
Analysis Batch: 346971

Client Sample ID: DUP-03
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: 400-135255-8 MSD
Matrix: Water
Analysis Batch: 346971

Client Sample ID: DUP-03
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	1.00		mg/L		100	75 - 125	2	4

Lab Sample ID: 400-135326-A-7 DU
Matrix: Water
Analysis Batch: 346971

Client Sample ID: Duplicate
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 400-347484/6
Matrix: Water
Analysis Batch: 347484

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.73	I	5.0	1.4	mg/L			03/28/17 11:43	1

Lab Sample ID: LCS 400-347484/7
Matrix: Water
Analysis Batch: 347484

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	14.9		mg/L		99	90 - 110		

Lab Sample ID: MRL 400-347484/3
Matrix: Water
Analysis Batch: 347484

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	5.71		mg/L		114	50 - 150		

Lab Sample ID: 400-135244-A-11 MS
Matrix: Water
Analysis Batch: 347484

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	180		250	183	J3	mg/L		2	77 - 128		

Lab Sample ID: 400-135244-A-11 MSD
Matrix: Water
Analysis Batch: 347484

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	180		250	184	J3	mg/L		2	77 - 128	0	5

Lab Sample ID: MB 400-347514/6
Matrix: Water
Analysis Batch: 347514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.56	I	5.0	1.4	mg/L			03/28/17 16:05	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-347514/7
Matrix: Water
Analysis Batch: 347514

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		102	90 - 110

Lab Sample ID: MRL 400-347514/3
Matrix: Water
Analysis Batch: 347514

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	5.54		mg/L		111	50 - 150

Lab Sample ID: 400-135291-A-6 MS
Matrix: Water
Analysis Batch: 347514

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	V	10.0	14.0	V	mg/L		88	77 - 128

Lab Sample ID: 400-135291-A-6 MSD
Matrix: Water
Analysis Batch: 347514

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	V	10.0	14.5	V	mg/L		93	77 - 128	3	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	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63824-23629.1
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:	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		
Email: krmitche@southernco.com	WO #:		Other:
Project Name: CCR Plant Crist Landfill 2	Project #: 40005424		
Site:	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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	400-135255 COC	Total Number of containers	Special Instructions/Note:
			Preservation Code:		F	N	D	N	N	D	N	N			
MW-300	3-15-17	1443	G	Water			X	X	X	X	X	X			
MW-303	3-16-17	1032	G	Water			X	X	X	X	X	X			
MW-304	3-15-17	1737	G	Water			X	X	X	X	X	X			
MW-305	3-15-17	1608	G	Water			X	X	X	X	X	X			
MW-308	3-16-17	0913	G	Water			X	X	X	X	X	X			
EB-02	3-16-17	0952	G	water			X	X		X	X	X			
FB-02	3-16-17	0940	G	water			X	X		X	X	X			
DUP-03	3-15-17	1508	G	water			X	X		X	X	X			

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
	3-16-17	RDH ENV		3/16/17 1305	TA-PEN
Relinquished by: B. Hagendorfer	Date/Time: 3-16-17 1305	Company RDH	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: 3.6°C, 4.2°C IR2

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135255-1
SDG Number: Landfill 2

Login Number: 135255
List Number: 1
Creator: Hughes, Nicholas T

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	3.6°C, 4.2°C - IR2
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 Plant Crist

TestAmerica Job ID: 400-135255-1
SDG: Landfill 2

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135255-2
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
4/17/2017 5:56:33 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 18
Chain of Custody 20
Receipt Checklists 21
Certification Summary 22

Job ID: 400-135255-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135255-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-298792: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-298792. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-298694: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-298694. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-2
SDG: Landfill 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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-2
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135255-1	MW-300	Water	03/15/17 14:43	03/16/17 13:05
400-135255-2	MW-303	Water	03/16/17 10:32	03/16/17 13:05
400-135255-3	MW-304	Water	03/15/17 17:37	03/16/17 13:05
400-135255-4	MW-305	Water	03/15/17 16:08	03/16/17 13:05
400-135255-5	MW-308	Water	03/16/17 09:13	03/16/17 13:05
400-135255-6	EB-02	Water	03/16/17 09:52	03/16/17 13:05
400-135255-7	FB-02	Water	03/16/17 09:40	03/16/17 13:05
400-135255-8	DUP-03	Water	03/15/17 15:08	03/16/17 13:05

Client Sample ID: MW-300

Date Collected: 03/15/17 14:43
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-1

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	0.637		0.146	0.157	1.00	0.101	pCi/L	03/21/17 08:47	04/12/17 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/21/17 08:47*	*04/12/17 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	5.09		0.537	0.712	1.00	0.416	pCi/L	03/21/17 09:26	04/04/17 10:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:49*	*1*
Y Carrier	*79.3*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:49*	*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	5.72		0.556	0.729	5.00	0.416	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-303

Date Collected: 03/16/17 10:32
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-2

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	0.632		0.146	0.156	1.00	0.100	pCi/L	03/21/17 08:47	04/12/17 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 08:47*	*04/12/17 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	5.71		0.601	0.798	1.00	0.467	pCi/L	03/21/17 09:26	04/04/17 10:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:49*	*1*
Y Carrier	*71.4*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:49*	*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	6.34		0.618	0.813	5.00	0.467	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-304

Date Collected: 03/15/17 17:37
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-3

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	0.642		0.149	0.160	1.00	0.0992	pCi/L	03/21/17 08:47	04/12/17 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*03/21/17 08:47*	*04/12/17 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	1.57		0.358	0.386	1.00	0.420	pCi/L	03/21/17 09:26	04/04/17 10:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:49*	*1*
Y Carrier	*78.5*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:49*	*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	2.22		0.388	0.418	5.00	0.420	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-305

Date Collected: 03/15/17 16:08
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-4

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	0.407		0.116	0.121	1.00	0.0991	pCi/L	03/21/17 08:47	04/12/17 09:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/21/17 08:47*	*04/12/17 09:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.730		0.307	0.315	1.00	0.435	pCi/L	03/21/17 09:26	04/04/17 10:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*1*
Y Carrier	*72.1*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*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	1.14		0.328	0.337	5.00	0.435	pCi/L		04/13/17 11:17	1

Client Sample ID: MW-308

Date Collected: 03/16/17 09:13
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-5

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	0.451		0.125	0.131	1.00	0.109	pCi/L	03/21/17 08:47	04/12/17 09:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/21/17 08:47*	*04/12/17 09:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.45		0.397	0.457	1.00	0.374	pCi/L	03/21/17 09:26	04/04/17 10:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*1*
Y Carrier	*76.6*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*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	2.90		0.417	0.475	5.00	0.374	pCi/L		04/13/17 11:17	1

Client Sample ID: EB-02

Date Collected: 03/16/17 09:52
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-6

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	0.00443	U	0.0619	0.0619	1.00	0.122	pCi/L	03/21/17 08:47	04/12/17 09:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/21/17 08:47*	*04/12/17 09:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.349	U	0.259	0.261	1.00	0.404	pCi/L	03/21/17 09:26	04/04/17 10:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*1*
Y Carrier	*73.3*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*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	0.354	U	0.266	0.268	5.00	0.404	pCi/L		04/13/17 11:17	1

Client Sample ID: FB-02

Date Collected: 03/16/17 09:40
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-7

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	0.0269	U	0.0565	0.0565	1.00	0.102	pCi/L	03/21/17 08:47	04/12/17 09:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.5*		*40 - 110*	*03/21/17 08:47*	*04/12/17 09:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0327	U	0.238	0.238	1.00	0.432	pCi/L	03/21/17 09:26	04/04/17 10:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.5*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*1*
Y Carrier	*74.8*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*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	-0.00579	U	0.245	0.245	5.00	0.432	pCi/L		04/13/17 11:17	1

Client Sample ID: DUP-03

Date Collected: 03/15/17 15:08
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-8

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	0.372		0.117	0.122	1.00	0.110	pCi/L	03/21/17 08:47	04/12/17 09:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*03/21/17 08:47*	*04/12/17 09:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.874		0.318	0.328	1.00	0.434	pCi/L	03/21/17 09:26	04/04/17 10:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*1*
Y Carrier	*72.1*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:50*	*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	1.25		0.339	0.350	5.00	0.434	pCi/L		04/13/17 11:17	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Client Sample ID: MW-300
Date Collected: 03/15/17 14:43
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303158	04/12/17 09:33	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301211	04/04/17 10:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-303
Date Collected: 03/16/17 10:32
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303158	04/12/17 09:33	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301211	04/04/17 10:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-304
Date Collected: 03/15/17 17:37
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303158	04/12/17 09:33	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301211	04/04/17 10:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: MW-305
Date Collected: 03/15/17 16:08
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 09:37	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301211	04/04/17 10:50	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-2
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 03/16/17 09:13
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 09:37	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301211	04/04/17 10:50	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: EB-02
Date Collected: 03/16/17 09:52
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 09:37	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301211	04/04/17 10:50	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: FB-02
Date Collected: 03/16/17 09:40
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 09:37	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301212	04/04/17 10:50	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Client Sample ID: DUP-03
Date Collected: 03/15/17 15:08
Date Received: 03/16/17 13:05

Lab Sample ID: 400-135255-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298694	03/21/17 08:47	MBC	TAL SL
Total/NA	Analysis	9315		1	303160	04/12/17 09:37	ALD	TAL SL
Total/NA	Prep	PrecSep_0			298792	03/21/17 09:26	MBC	TAL SL
Total/NA	Analysis	9320		1	301212	04/04/17 10:50	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303389	04/13/17 11:17	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 298694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	PrecSep-21	
400-135255-2	MW-303	Total/NA	Water	PrecSep-21	
400-135255-3	MW-304	Total/NA	Water	PrecSep-21	
400-135255-4	MW-305	Total/NA	Water	PrecSep-21	
400-135255-5	MW-308	Total/NA	Water	PrecSep-21	
400-135255-6	EB-02	Total/NA	Water	PrecSep-21	
400-135255-7	FB-02	Total/NA	Water	PrecSep-21	
400-135255-8	DUP-03	Total/NA	Water	PrecSep-21	
MB 160-298694/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-298694/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-298694/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 298792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-1	MW-300	Total/NA	Water	PrecSep_0	
400-135255-2	MW-303	Total/NA	Water	PrecSep_0	
400-135255-3	MW-304	Total/NA	Water	PrecSep_0	
400-135255-4	MW-305	Total/NA	Water	PrecSep_0	
400-135255-5	MW-308	Total/NA	Water	PrecSep_0	
400-135255-6	EB-02	Total/NA	Water	PrecSep_0	
400-135255-7	FB-02	Total/NA	Water	PrecSep_0	
400-135255-8	DUP-03	Total/NA	Water	PrecSep_0	
MB 160-298792/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-298792/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-298792/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-298694/1-A
Matrix: Water
Analysis Batch: 303158

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298694

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04071	U	0.0581	0.0582	1.00	0.0987	pCi/L	03/21/17 08:47	04/12/17 09:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*03/21/17 08:47*	*04/12/17 09:30*	*1*

Lab Sample ID: LCS 160-298694/2-A
Matrix: Water
Analysis Batch: 303158

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298694

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.788		1.04	1.00	0.117	pCi/L	86	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*

Lab Sample ID: LCSD 160-298694/3-A
Matrix: Water
Analysis Batch: 303158

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 298694

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.577		1.02	1.00	0.0975	pCi/L	84	68 - 137	0.10	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-298792/1-A
Matrix: Water
Analysis Batch: 301211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298792

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2658	U	0.253	0.254	1.00	0.407	pCi/L	03/21/17 09:26	04/04/17 10:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:47*	*1*
Y Carrier	*71.8*		*40 - 110*	*03/21/17 09:26*	*04/04/17 10:47*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-298792/2-A
Matrix: Water
Analysis Batch: 301211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298792

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.6	16.81		1.81	1.00	0.433	pCi/L	123	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*
Y Carrier	*74.0*		*40 - 110*

Lab Sample ID: LCSD 160-298792/3-A
Matrix: Water
Analysis Batch: 301211

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 298792

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.6	17.60		1.88	1.00	0.386	pCi/L	129	56 - 140	0.21	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*
Y Carrier	*70.3*		*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	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63824-23629.1
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:	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		
Email: krmitche@southernco.com	WO #:		Other:
Project Name: CCR Plant Crist Landfill 2	Project #: 40005424		
Site:	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	SM4500_Cl_E, SM4500_SO4_E	FieldSampling - Field Sampling Parameters	6020, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	400-135255 COC	Total Number of containers	Special Instructions/Note:
			Preservation Code:		F	N	N	N	N	D	N	N			
MW-300	3-15-17	1443	G	Water			X	X	X	X	X	X			
MW-303	3-16-17	1032	G	Water			X	X	X	X	X	X			
MW-304	3-15-17	1737	G	Water			X	X	X	X	X	X			
MW-305	3-15-17	1608	G	Water			X	X	X	X	X	X			
MW-308	3-16-17	0913	G	Water			X	X	X	X	X	X			
EB-02	3-16-17	0952	G	water			X	X		X	X	X			
FB-02	3-16-17	0940	G	water			X	X		X	X	X			
DUP-03	3-15-17	1508	G	water			X	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
	3-16-17	RDH ENV		3/16/17 1305	TA-PEN
Relinquished by: B. Hagendorfer	Date/Time: 3-16-17 1305	Company RDH	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: 3.6°C, 4.2°C IR2

4/17/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135255-2
SDG Number: Landfill 2

Login Number: 135255
List Number: 1
Creator: Hughes, Nicholas T

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	3.6°C, 4.2°C - IR2
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 Plant Crist

TestAmerica Job ID: 400-135255-2
SDG: Landfill 2

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135255-2
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135326-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/5/2017 3:37:26 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 9
Sample Summary 10
Client Sample Results 11
Definitions 22
Chronicle 23
QC Association 28
QC Sample Results 33
Chain of Custody 41
Receipt Checklists 42
Certification Summary 43

Job ID: 400-135326-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-135326-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-135326-1), MW-201 (400-135326-2), MW-204 (400-135326-5), MW-206 (400-135326-7), DUP-05 (400-135326-8) and DUP-04 (400-135326-11). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-135326-1), MW-201 (400-135326-2), MW-204 (400-135326-5), MW-206 (400-135326-7) and DUP-04 (400-135326-11). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: The following sample was diluted to bring the concentration of target analytes within the calibration range: DUP-05 (400-135326-8). 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-200 (400-135326-1), MW-201 (400-135326-2), MW-203 (400-135326-4), MW-204 (400-135326-5), MW-206 (400-135326-7), DUP-05 (400-135326-8) and DUP-04 (400-135326-11). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The method blank for analytical batch 347514 contained Sulfate 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) SM 4500 SO4 E: The method blank for analytical batch 347593 contained Sulfate 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) SM 4500 SO4 E: The method blank for analytical batch 347922 contained Sulfate 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-135326-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0029		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.061		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0012	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0078	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.015		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	570		2.5	1.3	mg/L	50		6020	Total Recoverable
Boron - DL2	28		2.0	0.84	mg/L	200		6020	Total Recoverable
Lead - RA	0.0011	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00027	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0022		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	2900		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1100		50	15	mg/L	25		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	290		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	5.02				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-135326-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0023		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0084		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0021	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0062		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Molybdenum	0.0015	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.012		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Calcium - DL	400		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - DL2	21		2.0	0.84	mg/L	200		6020	Total Recoverable
Thallium - RA	0.00040	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0015		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	2800		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	870		60	18	mg/L	30		SM 4500 Cl- E	Total/NA
Fluoride	0.92		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	290		180	49	mg/L	35		SM 4500 SO4 E	Total/NA
Field pH	5.1				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202 — Lab Sample ID: 400-135326-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00077	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0016	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0012	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - RA	0.12		0.050	0.021	mg/L	5		6020	Total Recoverable
Mercury	0.00028		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	11		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	12	V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.68				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-135326-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.042		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	18		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0027		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0012	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.000095	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - RA	0.83		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	14		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	64		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.66				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-135326-5

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	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00062	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron - DL	6.8		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	83		2.5	1.3	mg/L	50		6020	Total Recoverable
Cobalt - RA	0.021		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead - RA	0.0021		0.0013	0.00035	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-135326-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium - RA	0.0057		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00039	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	750		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	73		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.26		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	400		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.37				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-135326-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0089		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - RA	0.072		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	70		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	19		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.84				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-135326-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0078		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.12		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00042	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cadmium	0.0027		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0027		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Boron - DL	72		5.0	2.1	mg/L	500		6020	Total Recoverable
Calcium - DL	1800		25	13	mg/L	500		6020	Total Recoverable
Lead - RA	0.0082		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium - RA	0.016		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00088		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.00033		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	10000		50	34	mg/L	1		SM 2540C	Total/NA
Chloride	3700		200	60	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	640		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.22				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-05 — Lab Sample ID: 400-135326-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0020		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.061		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0012	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Calcium - DL	570		2.5	1.3	mg/L	50		6020	Total Recoverable
Boron - DL2	20		2.0	0.84	mg/L	200		6020	Total Recoverable
Lead - RA	0.0011	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium - RA	0.011		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00026	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0020		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	3100		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1100		60	18	mg/L	30		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	290		100	28	mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-03 — Lab Sample ID: 400-135326-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.7	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-03 — Lab Sample ID: 400-135326-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.7	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: DUP-04 — Lab Sample ID: 400-135326-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0021		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.060		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0084		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0021	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0075		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Calcium - DL	390		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - DL2	24		2.0	0.84	mg/L	200		6020	Total Recoverable
Selenium - RA	0.0089		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium - RA	0.00041	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0015		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	2500		25	17	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-04 (Continued)

Lab Sample ID: 400-135326-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	820		40	12	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.92		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	290		150	42	mg/L	30		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

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

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 Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135326-1	MW-200	Water	03/17/17 09:44	03/17/17 12:42
400-135326-2	MW-201	Water	03/16/17 14:07	03/17/17 12:42
400-135326-3	MW-202	Water	03/16/17 12:08	03/17/17 12:42
400-135326-4	MW-203	Water	03/16/17 15:47	03/17/17 12:42
400-135326-5	MW-204	Water	03/16/17 17:05	03/17/17 12:42
400-135326-6	MW-205	Water	03/16/17 18:06	03/17/17 12:42
400-135326-7	MW-206	Water	03/17/17 11:27	03/17/17 12:42
400-135326-8	DUP-05	Water	03/17/17 08:44	03/17/17 12:42
400-135326-9	EB-03	Water	03/17/17 10:40	03/17/17 12:42
400-135326-10	FB-03	Water	03/17/17 10:30	03/17/17 12:42
400-135326-11	DUP-04	Water	03/16/17 13:07	03/17/17 12:42

Client Sample ID: MW-200

Date Collected: 03/17/17 09:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-1

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		03/21/17 13:08	03/21/17 18:46	5
Arsenic	**0.0029**		0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 18:46	5
Barium	**0.061**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 18:46	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 18:46	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 18:46	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 18:46	5
Cobalt	**0.0012**	**I**	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 18:46	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 18:46	5
Molybdenum	**0.0078**	**I**	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 18:46	5
Selenium	**0.015**		0.0013	0.00024	mg/L		03/21/17 13:08	03/21/17 18:46	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**570**		2.5	1.3	mg/L		03/21/17 13:08	03/22/17 12:48	50

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**28**		2.0	0.84	mg/L		03/21/17 13:08	03/22/17 12:53	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.0011**	**I**	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 12:43	5
Thallium	**0.00027**	**I**	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 12:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0022**		0.00020	0.000070	mg/L		03/21/17 09:12	03/27/17 13:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2900**		25	17	mg/L			03/22/17 13:59	1
Chloride	**1100**		50	15	mg/L			03/28/17 18:45	25
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			03/23/17 18:16	1
Sulfate	**290**		150	42	mg/L			03/29/17 09:49	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.02**				SU			03/17/17 09:44	1

Client Sample ID: MW-201

Date Collected: 03/16/17 14:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-2

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		03/21/17 13:08	03/21/17 18:50	5
Arsenic	**0.0023**		0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 18:50	5
Barium	**0.060**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 18:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 18:50	5
Cadmium	**0.0084**		0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 18:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 18:50	5
Cobalt	**0.0021**	**I**	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 18:50	5
Lithium	**0.0062**		0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 18:50	5
Molybdenum	**0.0015**	**I**	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 18:50	5
Selenium	**0.012**		0.0013	0.00024	mg/L		03/21/17 13:08	03/21/17 18:50	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**400**		1.3	0.63	mg/L		03/21/17 13:08	03/22/17 13:42	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**21**		2.0	0.84	mg/L		03/21/17 13:08	03/22/17 15:08	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 13:38	5
Thallium	**0.00040**	**I**	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 13:38	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0015**		0.00020	0.000070	mg/L		03/21/17 09:12	03/27/17 13:22	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2800**		25	17	mg/L			03/22/17 13:59	1
Chloride	**870**		60	18	mg/L			03/28/17 17:24	30
Fluoride	**0.92**		0.10	0.032	mg/L			03/23/17 18:19	1
Sulfate	**290**		180	49	mg/L			03/28/17 18:26	35

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.1**				SU			03/16/17 14:07	1

Client Sample ID: MW-202
Date Collected: 03/16/17 12:08
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-3
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		03/21/17 13:08	03/21/17 19:13	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 19:13	5
Barium	**0.020**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 19:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:13	5
Calcium	**4.0**		0.25	0.13	mg/L		03/21/17 13:08	03/21/17 19:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 19:13	5
Cobalt	**0.00077**	**I**	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 19:13	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 19:13	5
Molybdenum	**0.0016**	**I**	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 19:13	5
Selenium	**0.0012**	**I**	0.0013	0.00024	mg/L		03/21/17 13:08	03/21/17 19:13	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.12**		0.050	0.021	mg/L		03/21/17 13:08	03/22/17 12:21	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 12:21	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 12:21	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00028**		0.00020	0.000070	mg/L		03/21/17 09:12	03/27/17 13:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**42**		5.0	3.4	mg/L			03/22/17 13:59	1
Chloride	**11**		2.0	0.60	mg/L			03/28/17 17:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/23/17 18:21	1
Sulfate	**12**	**V**	5.0	1.4	mg/L			03/28/17 17:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.68**				SU			03/16/17 12:08	1

Client Sample ID: MW-203

Date Collected: 03/16/17 15:47
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-4

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		03/21/17 13:08	03/21/17 19:17	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 19:17	5
Barium	**0.042**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 19:17	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:17	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:17	5
Calcium	**18**		0.25	0.13	mg/L		03/21/17 13:08	03/21/17 19:17	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 19:17	5
Cobalt	**0.0027**		0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 19:17	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/21/17 19:17	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 19:17	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 19:17	5
Selenium	**0.0012**	**I**	0.0013	0.00024	mg/L		03/21/17 13:08	03/21/17 19:17	5
Thallium	**0.000095**	**I**	0.00050	0.000085	mg/L		03/21/17 13:08	03/21/17 19:17	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.83**		0.050	0.021	mg/L		03/21/17 13:08	03/22/17 12:25	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		03/21/17 09:12	03/27/17 13:25	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		5.0	3.4	mg/L			03/22/17 13:59	1
Chloride	**14**		2.0	0.60	mg/L			03/28/17 17:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/23/17 18:24	1
Sulfate	**64**		50	14	mg/L			03/28/17 18:26	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.66**				SU			03/16/17 15:47	1

Client Sample ID: MW-204
Date Collected: 03/16/17 17:05
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-5
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		03/21/17 13:08	03/21/17 19:44	5
Arsenic	**0.0050**		0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 19:44	5
Barium	**0.026**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 19:44	5
Beryllium	**0.00062**	**I**	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:44	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:44	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 19:44	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 19:44	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.8**		0.50	0.21	mg/L		03/21/17 13:08	03/22/17 15:12	50
Calcium	**83**		2.5	1.3	mg/L		03/21/17 13:08	03/22/17 15:12	50

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/22/17 13:51	5
Cobalt	**0.021**		0.0025	0.00040	mg/L		03/21/17 13:08	03/22/17 13:51	5
Lead	**0.0021**		0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 13:51	5
Selenium	**0.0057**		0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 13:51	5
Thallium	**0.00039**	**I**	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 13:51	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		03/21/17 09:12	03/27/17 13:35	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**750**		5.0	3.4	mg/L			03/22/17 13:59	1
Chloride	**73**		10	3.0	mg/L			03/28/17 18:33	5
Fluoride	**0.26**		0.10	0.032	mg/L			03/23/17 18:27	1
Sulfate	**400**		150	42	mg/L			03/29/17 09:49	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.37**				SU			03/16/17 17:05	1

Client Sample ID: MW-205

Date Collected: 03/16/17 18:06
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-6

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		03/21/17 13:08	03/21/17 19:49	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 19:49	5
Barium	**0.0089**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 19:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:49	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:49	5
Calcium	**21**		0.25	0.13	mg/L		03/21/17 13:08	03/21/17 19:49	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 19:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 19:49	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 19:49	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 19:49	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.072**		0.050	0.021	mg/L		03/21/17 13:08	03/22/17 12:30	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 12:30	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 12:30	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 12:30	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		03/21/17 09:12	03/27/17 13:36	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**70**		5.0	3.4	mg/L			03/22/17 13:59	1
Chloride	**5.9**		2.0	0.60	mg/L			03/28/17 17:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/23/17 18:29	1
Sulfate	**19**		5.0	1.4	mg/L			03/29/17 09:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.84**				SU			03/16/17 18:06	1

Client Sample ID: MW-206

Date Collected: 03/17/17 11:27
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-7

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		03/21/17 13:08	03/21/17 19:53	5
Arsenic	**0.0078**		0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 19:53	5
Barium	**0.12**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 19:53	5
Beryllium	**0.00042**	**I**	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:53	5
Cadmium	**0.0027**		0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:53	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 19:53	5
Cobalt	**0.0027**		0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 19:53	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 19:53	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 19:53	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**72**		5.0	2.1	mg/L		03/21/17 13:08	03/22/17 15:03	500
Calcium	**1800**		25	13	mg/L		03/21/17 13:08	03/22/17 15:03	500

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.0082**		0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 13:20	5
Selenium	**0.016**		0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 13:20	5
Thallium	**0.00088**		0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 13:20	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00033**		0.00020	0.000070	mg/L		03/21/17 09:12	03/27/17 13:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10000**		50	34	mg/L			03/22/17 13:59	1
Chloride	**3700**		200	60	mg/L			03/28/17 18:33	100
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			03/23/17 18:38	1
Sulfate	**640**		150	42	mg/L			03/29/17 09:49	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.22**				SU			03/17/17 11:27	1

Client Sample ID: DUP-05

Date Collected: 03/17/17 08:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-8

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		03/21/17 13:08	03/21/17 19:58	5
Arsenic	**0.0020**		0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 19:58	5
Barium	**0.061**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 19:58	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:58	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 19:58	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 19:58	5
Cobalt	**0.0012**	**I**	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 19:58	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 19:58	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 19:58	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**570**		2.5	1.3	mg/L		03/21/17 13:08	03/22/17 14:05	50

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**20**		2.0	0.84	mg/L		03/21/17 13:08	03/22/17 14:41	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.0011**	**I**	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 14:00	5
Selenium	**0.011**		0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 14:00	5
Thallium	**0.00026**	**I**	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 14:00	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0020**		0.00020	0.000070	mg/L		03/21/17 09:12	03/27/17 13:39	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3100**		25	17	mg/L			03/22/17 13:59	1
Chloride	**1100**		60	18	mg/L			03/29/17 10:00	30
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			03/23/17 18:44	1
Sulfate	**290**		100	28	mg/L			03/30/17 10:00	20

Client Sample ID: EB-03

Date Collected: 03/17/17 10:40
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-9

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		03/21/17 13:08	03/21/17 20:02	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 20:02	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 20:02	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 20:02	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 20:02	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:08	03/21/17 20:02	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 20:02	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 20:02	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 20:02	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 20:02	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		03/21/17 13:08	03/22/17 12:34	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 12:34	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 12:34	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 12:34	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		03/21/17 09:12	03/27/17 13:40	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			03/22/17 13:59	1
Chloride	0.60	U	2.0	0.60	mg/L			03/29/17 09:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/23/17 18:46	1
Sulfate	**1.7**	**I V**	5.0	1.4	mg/L			03/29/17 09:09	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: FB-03
Date Collected: 03/17/17 10:30
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-10
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		03/21/17 13:08	03/21/17 20:07	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 20:07	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 20:07	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 20:07	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 20:07	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:08	03/21/17 20:07	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 20:07	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 20:07	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 20:07	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 20:07	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		03/21/17 13:08	03/22/17 12:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 12:39	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 12:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 12:39	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		03/21/17 09:12	03/27/17 13:42	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			03/22/17 13:59	1
Chloride	0.60	U	2.0	0.60	mg/L			03/29/17 09:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/23/17 18:49	1
Sulfate	**1.7**	**I V**	5.0	1.4	mg/L			03/29/17 09:09	1

Client Sample ID: DUP-04

Date Collected: 03/16/17 13:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-11

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		03/21/17 13:08	03/21/17 20:11	5
Arsenic	**0.0021**		0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 20:11	5
Barium	**0.060**		0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 20:11	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 20:11	5
Cadmium	**0.0084**		0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 20:11	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 20:11	5
Cobalt	**0.0021**	**I**	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 20:11	5
Lithium	**0.0075**		0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 20:11	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 20:11	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**390**		1.3	0.63	mg/L		03/21/17 13:08	03/22/17 14:50	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**24**		2.0	0.84	mg/L		03/21/17 13:08	03/22/17 14:54	200

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 14:45	5
Selenium	**0.0089**		0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 14:45	5
Thallium	**0.00041**	**I**	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 14:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0015**		0.00020	0.000070	mg/L		03/21/17 09:12	03/27/17 13:43	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2500**		25	17	mg/L			03/22/17 13:59	1
Chloride	**820**		40	12	mg/L			03/28/17 18:33	20
Fluoride	**0.92**		0.10	0.032	mg/L			03/23/17 18:52	1
Sulfate	**290**		150	42	mg/L			03/29/17 09:49	30

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200

Date Collected: 03/17/17 09:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 18:46	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 12:43	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	346822	03/22/17 12:48	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL2		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	346822	03/22/17 12:53	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		25	347515	03/28/17 18:45	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	347593	03/29/17 09:49	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/17/17 09:44	BWS	TAL PEN

Client Sample ID: MW-201

Date Collected: 03/16/17 14:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 18:50	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 13:38	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	346822	03/22/17 13:42	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL2		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	346822	03/22/17 15:08	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		30	347515	03/28/17 17:24	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		35	347514	03/28/17 18:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 14:07	BWS	TAL PEN

Client Sample ID: MW-202

Date Collected: 03/16/17 12:08
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 19:13	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 12:21	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347515	03/28/17 17:52	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347514	03/28/17 17:41	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 12:08	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 03/16/17 15:47
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 19:17	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 12:25	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347515	03/28/17 17:52	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:24	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	347514	03/28/17 18:26	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 15:47	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 03/16/17 17:05
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 19:44	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 13:51	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	346822	03/22/17 15:12	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:35	JAP	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204
Date Collected: 03/16/17 17:05
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	347515	03/28/17 18:33	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:27	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	347593	03/29/17 09:49	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 17:05	BWS	TAL PEN

Client Sample ID: MW-205
Date Collected: 03/16/17 18:06
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 19:49	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 12:30	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347515	03/28/17 17:52	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347593	03/29/17 09:09	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/16/17 18:06	BWS	TAL PEN

Client Sample ID: MW-206
Date Collected: 03/17/17 11:27
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 19:53	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 13:20	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	500	346822	03/22/17 15:03	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	347515	03/28/17 18:33	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	347593	03/29/17 09:49	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	348261	03/17/17 11:27	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-05

Date Collected: 03/17/17 08:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 19:58	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 14:00	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	346822	03/22/17 14:05	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL2		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	346822	03/22/17 14:41	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		30	347615	03/29/17 10:00	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	347763	03/30/17 10:00	BJB	TAL PEN

Client Sample ID: EB-03

Date Collected: 03/17/17 10:40
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 20:02	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 12:34	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347615	03/29/17 09:15	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347593	03/29/17 09:09	BJB	TAL PEN

Client Sample ID: FB-03

Date Collected: 03/17/17 10:30
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 20:07	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 12:39	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:42	JAP	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

Client Sample ID: FB-03

Date Collected: 03/17/17 10:30
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	347615	03/29/17 09:15	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	347593	03/29/17 09:09	BJB	TAL PEN

Client Sample ID: DUP-04

Date Collected: 03/16/17 13:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	346660	03/21/17 20:11	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	346822	03/22/17 14:45	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	346822	03/22/17 14:50	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL2		346580	03/21/17 13:08	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL2	200	346822	03/22/17 14:54	DRE	TAL PEN
Total/NA	Prep	7470A			346513	03/21/17 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1	347283	03/27/17 13:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	346671	03/22/17 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	347515	03/28/17 18:33	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	346971	03/23/17 18:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	347593	03/29/17 09:49	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 346513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	7470A	
400-135326-2	MW-201	Total/NA	Water	7470A	
400-135326-3	MW-202	Total/NA	Water	7470A	
400-135326-4	MW-203	Total/NA	Water	7470A	
400-135326-5	MW-204	Total/NA	Water	7470A	
400-135326-6	MW-205	Total/NA	Water	7470A	
400-135326-7	MW-206	Total/NA	Water	7470A	
400-135326-8	DUP-05	Total/NA	Water	7470A	
400-135326-9	EB-03	Total/NA	Water	7470A	
400-135326-10	FB-03	Total/NA	Water	7470A	
400-135326-11	DUP-04	Total/NA	Water	7470A	
MB 400-346513/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-346513/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-135291-C-6-B MS	Matrix Spike	Total/NA	Water	7470A	
400-135291-C-6-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 346580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total Recoverable	Water	3005A	
400-135326-1 - DL2	MW-200	Total Recoverable	Water	3005A	
400-135326-1 - RA	MW-200	Total Recoverable	Water	3005A	
400-135326-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-135326-2	MW-201	Total Recoverable	Water	3005A	
400-135326-2 - RA	MW-201	Total Recoverable	Water	3005A	
400-135326-2 - DL2	MW-201	Total Recoverable	Water	3005A	
400-135326-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-135326-3	MW-202	Total Recoverable	Water	3005A	
400-135326-3 - RA	MW-202	Total Recoverable	Water	3005A	
400-135326-4 - RA	MW-203	Total Recoverable	Water	3005A	
400-135326-4	MW-203	Total Recoverable	Water	3005A	
400-135326-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-135326-5	MW-204	Total Recoverable	Water	3005A	
400-135326-5 - RA	MW-204	Total Recoverable	Water	3005A	
400-135326-6 - RA	MW-205	Total Recoverable	Water	3005A	
400-135326-6	MW-205	Total Recoverable	Water	3005A	
400-135326-7 - RA	MW-206	Total Recoverable	Water	3005A	
400-135326-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-135326-7	MW-206	Total Recoverable	Water	3005A	
400-135326-8	DUP-05	Total Recoverable	Water	3005A	
400-135326-8 - RA	DUP-05	Total Recoverable	Water	3005A	
400-135326-8 - DL2	DUP-05	Total Recoverable	Water	3005A	
400-135326-8 - DL	DUP-05	Total Recoverable	Water	3005A	
400-135326-9 - RA	EB-03	Total Recoverable	Water	3005A	
400-135326-9	EB-03	Total Recoverable	Water	3005A	
400-135326-10	FB-03	Total Recoverable	Water	3005A	
400-135326-10 - RA	FB-03	Total Recoverable	Water	3005A	
400-135326-11 - RA	DUP-04	Total Recoverable	Water	3005A	
400-135326-11	DUP-04	Total Recoverable	Water	3005A	
400-135326-11 - DL2	DUP-04	Total Recoverable	Water	3005A	
400-135326-11 - DL	DUP-04	Total Recoverable	Water	3005A	
MB 400-346580/1-A ^5	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 346580 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-346580/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-135326-2 MS	MW-201	Total Recoverable	Water	3005A	
400-135326-2 MSD	MW-201	Total Recoverable	Water	3005A	

Analysis Batch: 346660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total Recoverable	Water	6020	346580
400-135326-2	MW-201	Total Recoverable	Water	6020	346580
400-135326-3	MW-202	Total Recoverable	Water	6020	346580
400-135326-4	MW-203	Total Recoverable	Water	6020	346580
400-135326-5	MW-204	Total Recoverable	Water	6020	346580
400-135326-6	MW-205	Total Recoverable	Water	6020	346580
400-135326-7	MW-206	Total Recoverable	Water	6020	346580
400-135326-8	DUP-05	Total Recoverable	Water	6020	346580
400-135326-9	EB-03	Total Recoverable	Water	6020	346580
400-135326-10	FB-03	Total Recoverable	Water	6020	346580
400-135326-11	DUP-04	Total Recoverable	Water	6020	346580
MB 400-346580/1-A ^5	Method Blank	Total Recoverable	Water	6020	346580
LCS 400-346580/2-A	Lab Control Sample	Total Recoverable	Water	6020	346580
400-135326-2 MS	MW-201	Total Recoverable	Water	6020	346580
400-135326-2 MSD	MW-201	Total Recoverable	Water	6020	346580

Analysis Batch: 346822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1 - RA	MW-200	Total Recoverable	Water	6020	346580
400-135326-1 - DL	MW-200	Total Recoverable	Water	6020	346580
400-135326-1 - DL2	MW-200	Total Recoverable	Water	6020	346580
400-135326-2 - RA	MW-201	Total Recoverable	Water	6020	346580
400-135326-2 - DL	MW-201	Total Recoverable	Water	6020	346580
400-135326-2 - DL2	MW-201	Total Recoverable	Water	6020	346580
400-135326-3 - RA	MW-202	Total Recoverable	Water	6020	346580
400-135326-4 - RA	MW-203	Total Recoverable	Water	6020	346580
400-135326-5 - RA	MW-204	Total Recoverable	Water	6020	346580
400-135326-5 - DL	MW-204	Total Recoverable	Water	6020	346580
400-135326-6 - RA	MW-205	Total Recoverable	Water	6020	346580
400-135326-7 - RA	MW-206	Total Recoverable	Water	6020	346580
400-135326-7 - DL	MW-206	Total Recoverable	Water	6020	346580
400-135326-8 - RA	DUP-05	Total Recoverable	Water	6020	346580
400-135326-8 - DL	DUP-05	Total Recoverable	Water	6020	346580
400-135326-8 - DL2	DUP-05	Total Recoverable	Water	6020	346580
400-135326-9 - RA	EB-03	Total Recoverable	Water	6020	346580
400-135326-10 - RA	FB-03	Total Recoverable	Water	6020	346580
400-135326-11 - RA	DUP-04	Total Recoverable	Water	6020	346580
400-135326-11 - DL	DUP-04	Total Recoverable	Water	6020	346580
400-135326-11 - DL2	DUP-04	Total Recoverable	Water	6020	346580
MB 400-346580/1-A ^5	Method Blank	Total Recoverable	Water	6020	346580
LCS 400-346580/2-A	Lab Control Sample	Total Recoverable	Water	6020	346580

Analysis Batch: 347283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	7470A	346513

Metals (Continued)

Analysis Batch: 347283 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-2	MW-201	Total/NA	Water	7470A	346513
400-135326-3	MW-202	Total/NA	Water	7470A	346513
400-135326-4	MW-203	Total/NA	Water	7470A	346513
400-135326-5	MW-204	Total/NA	Water	7470A	346513
400-135326-6	MW-205	Total/NA	Water	7470A	346513
400-135326-7	MW-206	Total/NA	Water	7470A	346513
400-135326-8	DUP-05	Total/NA	Water	7470A	346513
400-135326-9	EB-03	Total/NA	Water	7470A	346513
400-135326-10	FB-03	Total/NA	Water	7470A	346513
400-135326-11	DUP-04	Total/NA	Water	7470A	346513
MB 400-346513/14-A	Method Blank	Total/NA	Water	7470A	346513
LCS 400-346513/15-A	Lab Control Sample	Total/NA	Water	7470A	346513
400-135291-C-6-B MS	Matrix Spike	Total/NA	Water	7470A	346513
400-135291-C-6-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	346513

General Chemistry

Analysis Batch: 346671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	SM 2540C	
400-135326-2	MW-201	Total/NA	Water	SM 2540C	
400-135326-3	MW-202	Total/NA	Water	SM 2540C	
400-135326-4	MW-203	Total/NA	Water	SM 2540C	
400-135326-5	MW-204	Total/NA	Water	SM 2540C	
400-135326-6	MW-205	Total/NA	Water	SM 2540C	
400-135326-7	MW-206	Total/NA	Water	SM 2540C	
400-135326-8	DUP-05	Total/NA	Water	SM 2540C	
400-135326-9	EB-03	Total/NA	Water	SM 2540C	
400-135326-10	FB-03	Total/NA	Water	SM 2540C	
400-135326-11	DUP-04	Total/NA	Water	SM 2540C	
MB 400-346671/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-346671/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-135240-A-26 DU	Duplicate	Total/NA	Water	SM 2540C	
400-135367-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 346971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	SM 4500 F C	
400-135326-2	MW-201	Total/NA	Water	SM 4500 F C	
400-135326-3	MW-202	Total/NA	Water	SM 4500 F C	
400-135326-4	MW-203	Total/NA	Water	SM 4500 F C	
400-135326-5	MW-204	Total/NA	Water	SM 4500 F C	
400-135326-6	MW-205	Total/NA	Water	SM 4500 F C	
400-135326-7	MW-206	Total/NA	Water	SM 4500 F C	
400-135326-8	DUP-05	Total/NA	Water	SM 4500 F C	
400-135326-9	EB-03	Total/NA	Water	SM 4500 F C	
400-135326-10	FB-03	Total/NA	Water	SM 4500 F C	
400-135326-11	DUP-04	Total/NA	Water	SM 4500 F C	
MB 400-346971/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-346971/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 346971 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135255-A-8 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-135255-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-135326-7 DU	MW-206	Total/NA	Water	SM 4500 F C	

Analysis Batch: 347514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-135326-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-135326-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
MB 400-347514/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347514/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347514/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135291-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135291-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 347515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-135326-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-135326-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-135326-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-135326-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-135326-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-135326-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-135326-11	DUP-04	Total/NA	Water	SM 4500 Cl- E	
MB 400-347515/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347515/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347515/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135291-A-6 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135291-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 347593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-135326-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-135326-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-135326-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-135326-9	EB-03	Total/NA	Water	SM 4500 SO4 E	
400-135326-10	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-135326-11	DUP-04	Total/NA	Water	SM 4500 SO4 E	
MB 400-347593/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347593/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347593/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135428-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135428-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 347615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-8	DUP-05	Total/NA	Water	SM 4500 Cl- E	
400-135326-9	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-135326-10	FB-03	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 347615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-347615/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-347615/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-347615/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135428-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-135428-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 347763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-8	DUP-05	Total/NA	Water	SM 4500 SO4 E	
MB 400-347763/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347763/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347763/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135429-B-5 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135429-B-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 347922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-347922/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-347922/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-347922/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135429-B-11 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135429-B-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 348261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	Field Sampling	
400-135326-2	MW-201	Total/NA	Water	Field Sampling	
400-135326-3	MW-202	Total/NA	Water	Field Sampling	
400-135326-4	MW-203	Total/NA	Water	Field Sampling	
400-135326-5	MW-204	Total/NA	Water	Field Sampling	
400-135326-6	MW-205	Total/NA	Water	Field Sampling	
400-135326-7	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-346580/1-A ^5
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346580

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/21/17 13:08	03/21/17 18:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/21/17 18:37	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:08	03/21/17 18:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 18:37	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/21/17 18:37	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:08	03/21/17 18:37	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/21/17 18:37	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:08	03/21/17 18:37	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/21/17 18:37	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/21/17 18:37	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:08	03/21/17 18:37	5

Lab Sample ID: MB 400-346580/1-A ^5
Matrix: Water
Analysis Batch: 346822

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 346580

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/21/17 13:08	03/22/17 12:12	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/21/17 13:08	03/22/17 12:12	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/21/17 13:08	03/22/17 12:12	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/22/17 12:12	5
Boron	0.021	U	0.050	0.021	mg/L		03/21/17 13:08	03/22/17 12:12	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/21/17 13:08	03/22/17 12:12	5
Calcium	0.13	U	0.25	0.13	mg/L		03/21/17 13:08	03/22/17 12:12	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/21/17 13:08	03/22/17 12:12	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/21/17 13:08	03/22/17 12:12	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/21/17 13:08	03/22/17 12:12	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		03/21/17 13:08	03/22/17 12:12	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		03/21/17 13:08	03/22/17 12:12	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		03/21/17 13:08	03/22/17 12:12	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/21/17 13:08	03/22/17 12:12	5

Lab Sample ID: LCS 400-346580/2-A
Matrix: Water
Analysis Batch: 346660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0566		mg/L		113	80 - 120
Arsenic	0.0500	0.0545		mg/L		109	80 - 120
Barium	0.0500	0.0530		mg/L		106	80 - 120
Beryllium	0.0500	0.0507		mg/L		101	80 - 120
Cadmium	0.0500	0.0514		mg/L		103	80 - 120
Calcium	5.00	5.16		mg/L		103	80 - 120
Chromium	0.0500	0.0481		mg/L		96	80 - 120
Cobalt	0.0500	0.0474		mg/L		95	80 - 120
Lithium	0.0500	0.0517		mg/L		103	80 - 120
Molybdenum	0.100	0.0988		mg/L		99	80 - 120
Selenium	0.0500	0.0524		mg/L		105	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 400-346580/2-A
Matrix: Water
Analysis Batch: 346822

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 346580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0563		mg/L		113	80 - 120
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Barium	0.0500	0.0521		mg/L		104	80 - 120
Beryllium	0.0500	0.0520		mg/L		104	80 - 120
Boron	0.100	0.103		mg/L		103	80 - 120
Cadmium	0.0500	0.0534		mg/L		107	80 - 120
Calcium	5.00	5.17		mg/L		103	80 - 120
Chromium	0.0500	0.0528		mg/L		106	80 - 120
Cobalt	0.0500	0.0516		mg/L		103	80 - 120
Lead	0.0500	0.0525		mg/L		105	80 - 120
Lithium	0.0500	0.0529		mg/L		106	80 - 120
Molybdenum	0.100	0.0992		mg/L		99	80 - 120
Selenium	0.0500	0.0526		mg/L		105	80 - 120
Thallium	0.0100	0.0104		mg/L		104	80 - 120

Lab Sample ID: 400-135326-2 MS
Matrix: Water
Analysis Batch: 346660

Client Sample ID: MW-201
Prep Type: Total Recoverable
Prep Batch: 346580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0595		mg/L		119	75 - 125
Arsenic	0.0023		0.0500	0.0584		mg/L		112	75 - 125
Barium	0.060		0.0500	0.112		mg/L		105	75 - 125
Beryllium	0.00034	U	0.0500	0.0546		mg/L		109	75 - 125
Cadmium	0.0084		0.0500	0.0567		mg/L		97	75 - 125
Chromium	0.0011	U	0.0500	0.0416		mg/L		83	75 - 125
Cobalt	0.0021	I	0.0500	0.0424		mg/L		81	75 - 125
Lead	0.00035	I	0.0500	0.0477		mg/L		95	75 - 125
Lithium	0.0062		0.0500	0.0597		mg/L		107	75 - 125
Molybdenum	0.0015	I	0.100	0.107		mg/L		105	75 - 125
Selenium	0.012		0.0500	0.0683		mg/L		113	75 - 125
Thallium	0.00041	I	0.0100	0.0114		mg/L		110	75 - 125

Lab Sample ID: 400-135326-2 MSD
Matrix: Water
Analysis Batch: 346660

Client Sample ID: MW-201
Prep Type: Total Recoverable
Prep Batch: 346580

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	0.0579		mg/L		116	75 - 125	3	20
Arsenic	0.0023		0.0500	0.0575		mg/L		110	75 - 125	2	20
Barium	0.060		0.0500	0.116		mg/L		114	75 - 125	4	20
Beryllium	0.00034	U	0.0500	0.0523		mg/L		105	75 - 125	4	20
Cadmium	0.0084		0.0500	0.0582		mg/L		100	75 - 125	3	20
Chromium	0.0011	U	0.0500	0.0437		mg/L		87	75 - 125	5	20
Cobalt	0.0021	I	0.0500	0.0432		mg/L		82	75 - 125	2	20
Lead	0.00035	I	0.0500	0.0484		mg/L		96	75 - 125	2	20
Lithium	0.0062		0.0500	0.0589		mg/L		105	75 - 125	1	20
Molybdenum	0.0015	I	0.100	0.107		mg/L		105	75 - 125	0	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-135326-2 MSD
Matrix: Water
Analysis Batch: 346660

Client Sample ID: MW-201
Prep Type: Total Recoverable
Prep Batch: 346580

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.012		0.0500	0.0629		mg/L		102	75 - 125	8	20
Thallium	0.00041	I	0.0100	0.0116		mg/L		112	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-346513/14-A
Matrix: Water
Analysis Batch: 347283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346513

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/21/17 09:03	03/27/17 12:57	1

Lab Sample ID: LCS 400-346513/15-A
Matrix: Water
Analysis Batch: 347283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00110		mg/L		109	80 - 120

Lab Sample ID: 400-135291-C-6-B MS
Matrix: Water
Analysis Batch: 347283

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 346513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00010	I	0.00201	0.00230		mg/L		109	80 - 120

Lab Sample ID: 400-135291-C-6-C MSD
Matrix: Water
Analysis Batch: 347283

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 346513

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00010	I	0.00201	0.00239		mg/L		114	80 - 120	4	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-346671/1
Matrix: Water
Analysis Batch: 346671

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			03/22/17 13:59	1

Lab Sample ID: LCS 400-346671/2
Matrix: Water
Analysis Batch: 346671

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	250		mg/L		85	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-135240-A-26 DU
Matrix: Water
Analysis Batch: 346671

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	56		56.0		mg/L		0	5

Lab Sample ID: 400-135367-B-2 DU
Matrix: Water
Analysis Batch: 346671

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	180		178		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-347515/6
Matrix: Water
Analysis Batch: 347515

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/28/17 16:11	1

Lab Sample ID: LCS 400-347515/7
Matrix: Water
Analysis Batch: 347515

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 400-347515/3
Matrix: Water
Analysis Batch: 347515

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	1.90	I	mg/L		95	50 - 150

Lab Sample ID: 400-135291-A-6 MS
Matrix: Water
Analysis Batch: 347515

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	11		10.0	20.8		mg/L		101	73 - 120

Lab Sample ID: 400-135291-A-6 MSD
Matrix: Water
Analysis Batch: 347515

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	11		10.0	20.4		mg/L		96	73 - 120	2	8

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MB 400-347615/6
Matrix: Water
Analysis Batch: 347615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			03/29/17 08:30	1

Lab Sample ID: LCS 400-347615/7
Matrix: Water
Analysis Batch: 347615

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	30.4		mg/L		101	90 - 110

Lab Sample ID: MRL 400-347615/3
Matrix: Water
Analysis Batch: 347615

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: 400-135428-A-1 MS
Matrix: Water
Analysis Batch: 347615

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	5.5		10.0	13.5		mg/L		80	73 - 120

Lab Sample ID: 400-135428-A-1 MSD
Matrix: Water
Analysis Batch: 347615

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	5.5		10.0	13.3		mg/L		78	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-346971/3
Matrix: Water
Analysis Batch: 346971

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			03/23/17 17:59	1

Lab Sample ID: LCS 400-346971/4
Matrix: Water
Analysis Batch: 346971

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	4.05		mg/L		101	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-135255-A-8 MS
Matrix: Water
Analysis Batch: 346971

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: 400-135255-A-8 MSD
Matrix: Water
Analysis Batch: 346971

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	1.00		mg/L		100	75 - 125	2	4

Lab Sample ID: 400-135326-7 DU
Matrix: Water
Analysis Batch: 346971

Client Sample ID: MW-206
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 400-347514/6
Matrix: Water
Analysis Batch: 347514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.56	I	5.0	1.4	mg/L			03/28/17 16:05	1

Lab Sample ID: LCS 400-347514/7
Matrix: Water
Analysis Batch: 347514

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		102	90 - 110

Lab Sample ID: MRL 400-347514/3
Matrix: Water
Analysis Batch: 347514

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	5.54		mg/L		111	50 - 150

Lab Sample ID: 400-135291-A-6 MS
Matrix: Water
Analysis Batch: 347514

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	V	10.0	14.0	V	mg/L		88	77 - 128

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-135291-A-6 MSD
Matrix: Water
Analysis Batch: 347514

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	V	10.0	14.5	V	mg/L		93	77 - 128	3	5

Lab Sample ID: MB 400-347593/6
Matrix: Water
Analysis Batch: 347593

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.50	I	5.0	1.4	mg/L			03/29/17 08:32	1

Lab Sample ID: LCS 400-347593/7
Matrix: Water
Analysis Batch: 347593

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 400-347593/3
Matrix: Water
Analysis Batch: 347593

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	5.26		mg/L		105	50 - 150

Lab Sample ID: 400-135428-A-1 MS
Matrix: Water
Analysis Batch: 347593

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	4.9	I V	10.0	14.1	V	mg/L		91	77 - 128

Lab Sample ID: 400-135428-A-1 MSD
Matrix: Water
Analysis Batch: 347593

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	4.9	I V	10.0	14.0	V	mg/L		91	77 - 128	0	5

Lab Sample ID: MB 400-347763/6
Matrix: Water
Analysis Batch: 347763

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			03/30/17 08:53	1

Lab Sample ID: LCS 400-347763/7
Matrix: Water
Analysis Batch: 347763

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	14.2		mg/L		95	90 - 110

Lab Sample ID: MRL 400-347763/3
Matrix: Water
Analysis Batch: 347763

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	4.99	I	mg/L		100	50 - 150		

Lab Sample ID: 400-135429-B-5 MS
Matrix: Water
Analysis Batch: 347763

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	2.5	I	10.0	10.7		mg/L		82	77 - 128		

Lab Sample ID: 400-135429-B-5 MSD
Matrix: Water
Analysis Batch: 347763

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	2.5	I	10.0	10.8		mg/L		84	77 - 128	1	5

Lab Sample ID: MB 400-347922/6
Matrix: Water
Analysis Batch: 347922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.54	I	5.0	1.4	mg/L			03/31/17 08:56	1

Lab Sample ID: LCS 400-347922/7
Matrix: Water
Analysis Batch: 347922

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		105	90 - 110		

Lab Sample ID: MRL 400-347922/3
Matrix: Water
Analysis Batch: 347922

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	6.41		mg/L		128	50 - 150		

Lab Sample ID: 400-135429-B-11 MS
Matrix: Water
Analysis Batch: 347922

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	2.4	I V	10.0	10.5	V	mg/L		81	77 - 128		

Lab Sample ID: 400-135429-B-11 MSD
Matrix: Water
Analysis Batch: 347922

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	2.4	I V	10.0	10.5	V	mg/L		81	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	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63825-23630.1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424			
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:

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, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N	N		
MW-200	3-17-17	0944	G	Water			X	X	X	X	X	X		
MW-201	3-16-17	1407	G	Water			X	X	X	X	X	X		
MW-202	3-16-17	1208	G	Water			X	X	X	X	X	X		
MW-203	3-16-17	1547	G	Water			X	X	X	X	X	X		
MW-204	3-16-17	1705	G	Water			X	X	X	X	X	X		
MW-205	3-16-17	1806	G	Water			X	X	X	X	X	X		
MW-206	3-17-17	1127	G	Water			X	X	X	X	X	X		
DUP-05	3-17-17	0944	G	water			X	X		X	X	X		
EB-03	3-17-17	1040	G	water			X	X		X	X	X		
FB-03	3-17-17	1030	G	water			X	X		X	X	X		

400-135326 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
1		3-17-17 1240	FOR ENV.		3/17/17 1242	TA-PEN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0, 0.0, 0.0°C IR

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135326-1
SDG Number: Gypsum Storage Area

Login Number: 135326
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.0°C, 0.0°C - IR2
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.	False	Received extra samples not listed on COC.
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 Plant Crist

TestAmerica Job ID: 400-135326-1
SDG: Gypsum Storage Area

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-135326-2
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
4/17/2017 5:58:04 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Method Summary 3
Sample Summary 4
Client Sample Results 5
Definitions 16
Chronicle 17
QC Association 20
QC Sample Results 21
Chain of Custody 23
Receipt Checklists 24
Certification Summary 25

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135326-1	MW-200	Water	03/17/17 09:44	03/17/17 12:42
400-135326-2	MW-201	Water	03/16/17 14:07	03/17/17 12:42
400-135326-3	MW-202	Water	03/16/17 12:08	03/17/17 12:42
400-135326-4	MW-203	Water	03/16/17 15:47	03/17/17 12:42
400-135326-5	MW-204	Water	03/16/17 17:05	03/17/17 12:42
400-135326-6	MW-205	Water	03/16/17 18:06	03/17/17 12:42
400-135326-7	MW-206	Water	03/17/17 11:27	03/17/17 12:42
400-135326-8	DUP-05	Water	03/17/17 08:44	03/17/17 12:42
400-135326-9	EB-03	Water	03/17/17 10:40	03/17/17 12:42
400-135326-10	FB-03	Water	03/17/17 10:30	03/17/17 12:42
400-135326-11	DUP-04	Water	03/16/17 13:07	03/17/17 12:42

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 03/17/17 09:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-1
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	6.65		0.447	0.747	1.00	0.0902	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.62		0.577	0.908	1.00	0.316	pCi/L	03/22/17 13:51	04/05/17 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*1*
Y Carrier	*91.6*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*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	14.3		0.730	1.18	5.00	0.316	pCi/L		04/14/17 10:45	1

Client Sample ID: MW-201
Date Collected: 03/16/17 14:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-2
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	4.19		0.362	0.523	1.00	0.110	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	7.97		0.607	0.952	1.00	0.352	pCi/L	03/22/17 13:51	04/05/17 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*1*
Y Carrier	*88.6*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*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	12.2		0.707	1.09	5.00	0.352	pCi/L		04/14/17 10:45	1

Client Sample ID: MW-202
Date Collected: 03/16/17 12:08
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-3
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	**0.579**		0.142	0.151	1.00	0.0955	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*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	0.257	0.258	1.00	0.421	pCi/L	03/22/17 13:51	04/05/17 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*1*
Y Carrier	*87.5*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*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	**0.814**		0.294	0.299	5.00	0.421	pCi/L		04/14/17 10:45	1

Client Sample ID: MW-203
Date Collected: 03/16/17 15:47
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-4
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	1.64		0.237	0.279	1.00	0.119	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.85		0.404	0.482	1.00	0.348	pCi/L	03/22/17 13:51	04/05/17 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*1*
Y Carrier	*93.5*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*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	4.49		0.468	0.556	5.00	0.348	pCi/L		04/14/17 10:45	1

Client Sample ID: MW-204
Date Collected: 03/16/17 17:05
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-5
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	1.49		0.217	0.255	1.00	0.110	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.2		0.725	1.26	1.00	0.378	pCi/L	03/22/17 13:51	04/05/17 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:42*	*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	12.6		0.757	1.28	5.00	0.378	pCi/L		04/14/17 10:45	1

Client Sample ID: MW-205

Date Collected: 03/16/17 18:06
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-6

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	**0.143**		0.0832	0.0842	1.00	0.107	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.264	0.264	1.00	0.449	pCi/L	03/22/17 13:51	04/05/17 10:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.9*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:43*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:43*	*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	0.273	U	0.277	0.277	5.00	0.449	pCi/L		04/14/17 10:45	1

Client Sample ID: MW-206

Date Collected: 03/17/17 11:27
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-7

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	11.1		0.653	1.19	1.00	0.127	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.4*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	16.7		1.01	1.83	1.00	0.468	pCi/L	03/22/17 13:51	04/05/17 10:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.4*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:43*	*1*
Y Carrier	*87.1*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:43*	*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	27.7		1.20	2.19	5.00	0.468	pCi/L		04/14/17 10:45	1

Client Sample ID: DUP-05
Date Collected: 03/17/17 08:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-8
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	6.22		0.453	0.720	1.00	0.104	pCi/L	03/22/17 12:56	04/13/17 18:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	10.1		0.756	1.19	1.00	0.517	pCi/L	03/22/17 13:51	04/05/17 10:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:43*	*1*
Y Carrier	*83.4*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:43*	*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	16.3		0.882	1.39	5.00	0.517	pCi/L		04/14/17 10:45	1

Client Sample ID: EB-03

Date Collected: 03/17/17 10:40
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-9

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	-0.0125	U	0.0601	0.0601	1.00	0.126	pCi/L	03/22/17 12:56	04/13/17 18:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.189	U	0.292	0.292	1.00	0.489	pCi/L	03/22/17 13:51	04/05/17 10:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:44*	*1*
Y Carrier	*86.7*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:44*	*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	0.176	U	0.298	0.298	5.00	0.489	pCi/L		04/14/17 10:45	1

Client Sample ID: FB-03

Date Collected: 03/17/17 10:30
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-10

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	-0.0281	U	0.0381	0.0382	1.00	0.0973	pCi/L	03/22/17 12:56	04/13/17 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:50*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.624**		0.276	0.282	1.00	0.404	pCi/L	03/22/17 13:51	04/05/17 10:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:44*	*1*
Y Carrier	*90.8*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:44*	*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	**0.596**		0.279	0.285	5.00	0.404	pCi/L		04/14/17 10:45	1

Client Sample ID: DUP-04

Date Collected: 03/16/17 13:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-11

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	4.38		0.367	0.539	1.00	0.116	pCi/L	03/22/17 12:56	04/13/17 18:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:50*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	9.77		0.733	1.16	1.00	0.503	pCi/L	03/22/17 13:51	04/05/17 10:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:44*	*1*
Y Carrier	*85.2*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:44*	*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	14.2		0.820	1.28	5.00	0.503	pCi/L		04/14/17 10:45	1

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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 Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 03/17/17 09:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:42	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: MW-201
Date Collected: 03/16/17 14:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:42	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: MW-202
Date Collected: 03/16/17 12:08
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:42	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: MW-203
Date Collected: 03/16/17 15:47
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:42	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: MW-204
Date Collected: 03/16/17 17:05
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:42	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: MW-205
Date Collected: 03/16/17 18:06
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:43	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: MW-206
Date Collected: 03/17/17 11:27
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:43	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: DUP-05
Date Collected: 03/17/17 08:44
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303376	04/13/17 18:45	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301549	04/05/17 10:43	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

Client Sample ID: EB-03

Date Collected: 03/17/17 10:40
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303352	04/13/17 18:49	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301550	04/05/17 10:44	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: FB-03

Date Collected: 03/17/17 10:30
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303352	04/13/17 18:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301550	04/05/17 10:44	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Client Sample ID: DUP-04

Date Collected: 03/16/17 13:07
Date Received: 03/17/17 12:42

Lab Sample ID: 400-135326-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			299059	03/22/17 12:56	MBC	TAL SL
Total/NA	Analysis	9315		1	303352	04/13/17 18:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			299066	03/22/17 13:51	MBC	TAL SL
Total/NA	Analysis	9320		1	301550	04/05/17 10:44	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	303525	04/14/17 10:45	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 299059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	PrecSep-21	
400-135326-2	MW-201	Total/NA	Water	PrecSep-21	
400-135326-3	MW-202	Total/NA	Water	PrecSep-21	
400-135326-4	MW-203	Total/NA	Water	PrecSep-21	
400-135326-5	MW-204	Total/NA	Water	PrecSep-21	
400-135326-6	MW-205	Total/NA	Water	PrecSep-21	
400-135326-7	MW-206	Total/NA	Water	PrecSep-21	
400-135326-8	DUP-05	Total/NA	Water	PrecSep-21	
400-135326-9	EB-03	Total/NA	Water	PrecSep-21	
400-135326-10	FB-03	Total/NA	Water	PrecSep-21	
400-135326-11	DUP-04	Total/NA	Water	PrecSep-21	
MB 160-299059/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-299059/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
490-123585-E-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
490-123585-F-1-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	

Prep Batch: 299066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135326-1	MW-200	Total/NA	Water	PrecSep_0	
400-135326-2	MW-201	Total/NA	Water	PrecSep_0	
400-135326-3	MW-202	Total/NA	Water	PrecSep_0	
400-135326-4	MW-203	Total/NA	Water	PrecSep_0	
400-135326-5	MW-204	Total/NA	Water	PrecSep_0	
400-135326-6	MW-205	Total/NA	Water	PrecSep_0	
400-135326-7	MW-206	Total/NA	Water	PrecSep_0	
400-135326-8	DUP-05	Total/NA	Water	PrecSep_0	
400-135326-9	EB-03	Total/NA	Water	PrecSep_0	
400-135326-10	FB-03	Total/NA	Water	PrecSep_0	
400-135326-11	DUP-04	Total/NA	Water	PrecSep_0	
MB 160-299066/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-299066/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
490-123585-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
490-123585-F-1-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-299059/1-A
Matrix: Water
Analysis Batch: 303376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 299059

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.002963	U	0.0515	0.0515	1.00	0.105	pCi/L	03/22/17 12:56	04/13/17 18:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*03/22/17 12:56*	*04/13/17 18:43*	*1*

Lab Sample ID: LCS 160-299059/2-A
Matrix: Water
Analysis Batch: 303376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 299059

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.383		0.990	1.00	0.110	pCi/L	83	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*

Lab Sample ID: 490-123585-E-1-A MSD
Matrix: Water
Analysis Batch: 303376

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 299059

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	0.119	U	11.4	9.351		0.992	1.00	0.100	pCi/L	81	75 - 138	0.64	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*94.7*		*40 - 110*

Lab Sample ID: 490-123585-F-1-A MS
Matrix: Water
Analysis Batch: 303376

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 299059

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.119	U	11.4	10.70		1.13	1.00	0.108	pCi/L	93	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-299066/1-A
Matrix: Water
Analysis Batch: 301549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 299066

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1584	U	0.241	0.242	1.00	0.453	pCi/L	03/22/17 13:51	04/05/17 10:41	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:41*	*1*
Y Carrier	*83.0*		*40 - 110*	*03/22/17 13:51*	*04/05/17 10:41*	*1*

Lab Sample ID: LCS 160-299066/2-A
Matrix: Water
Analysis Batch: 301549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 299066

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.6	13.07		1.41	1.00	0.377	pCi/L	96	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*89.0*		*40 - 110*

Lab Sample ID: 490-123585-E-1-B MSD
Matrix: Water
Analysis Batch: 301549

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 299066

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	0.327	U	13.6	13.81		1.54	1.00	0.427	pCi/L	99	45 - 150	0.07	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*94.7*		*40 - 110*
Y Carrier	*69.9*		*40 - 110*

Lab Sample ID: 490-123585-F-1-B MS
Matrix: Water
Analysis Batch: 301549

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 299066

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.327	U	13.6	13.60		1.48	1.00	0.375	pCi/L	97	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*87.9*		*40 - 110*
Y Carrier	*89.7*		*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	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-63825-23630.1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424			
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:

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, 7470A	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D	N	N		
MW-200	3-17-17	0944	G	Water			X	X	X	X	X	X		
MW-201	3-16-17	1407	G	Water			X	X	X	X	X	X		
MW-202	3-16-17	1208	G	Water			X	X	X	X	X	X		
MW-203	3-16-17	1547	G	Water			X	X	X	X	X	X		
MW-204	3-16-17	1705	G	Water			X	X	X	X	X	X		
MW-205	3-16-17	1806	G	Water			X	X	X	X	X	X		
MW-206	3-17-17	1127	G	Water			X	X	X	X	X	X		
DUP-05	3-17-17	0944	G	water			X	X		X	X	X		
EB-03	3-17-17	1040	G	water			X	X		X	X	X		
FB-03	3-17-17	1030	G	water			X	X		X	X	X		

400-135326 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
	3-17-17 1240	FOR ENV.		3/17/17 1242	TA-PEN
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: 0.0, 0.0, 0.0°C IR

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-135326-2
SDG Number: Gypsum Storage Area

Login Number: 135326
List Number: 1
Creator: Hughes, Nicholas T

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	0.0°C, 0.0°C, 0.0°C - IR2
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.	False	Received extra samples not listed on COC.
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 Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-135326-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-137980-1
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/8/2017 6:38:35 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 13
Chronicle 14
QC Association 16
QC Sample Results 19
Chain of Custody 26
Receipt Checklists 27
Certification Summary 28

Job ID: 400-137980-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-137980-1

Metals
Method(s) 6020: The method blank for preparation batch 354493 and analytical batch 354767 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.

General Chemistry
Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354001 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354060 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-137980-1

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	0.76		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00052	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.6				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-137980-2

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	0.37		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00046	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Chloride	4.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-137980-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0089		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	6.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.9	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.52				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-137980-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.58		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00075	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.69				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-137980-5

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	0.83		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00046	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 400-137980-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	4.0	I	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.42				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

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

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 Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137980-1	MW-100	Water	05/15/17 11:44	05/15/17 15:54
400-137980-2	MW-107	Water	05/15/17 10:37	05/15/17 15:54
400-137980-3	MW-108	Water	05/15/17 09:22	05/15/17 15:54
400-137980-4	MW-306	Water	05/15/17 13:33	05/15/17 15:54
400-137980-5	MW-307	Water	05/15/17 12:38	05/15/17 15:54

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 05/15/17 11:44
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-1
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		05/22/17 16:22	05/23/17 14:14	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:22	05/23/17 14:14	5
Barium	**0.015**		0.0025	0.00049	mg/L		05/22/17 16:22	05/23/17 14:14	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:14	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:22	05/23/17 14:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:14	5
Calcium	**0.76**		0.25	0.13	mg/L		05/22/17 16:22	05/23/17 14:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:22	05/23/17 14:14	5
Cobalt	**0.00052**	**I**	0.0025	0.00040	mg/L		05/22/17 16:22	05/23/17 14:14	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:22	05/23/17 14:14	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:22	05/23/17 14:14	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:22	05/23/17 14:14	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:22	05/23/17 14:14	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:22	05/23/17 14:14	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		05/22/17 09:50	05/24/17 13:51	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			05/17/17 16:56	1
Chloride	**4.8**		2.0	0.60	mg/L			05/18/17 09:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 11:39	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 09:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.6**				SU			05/15/17 11:44	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-107
Date Collected: 05/15/17 10:37
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-2
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		05/22/17 16:22	05/23/17 14:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:22	05/23/17 14:18	5
Barium	**0.011**		0.0025	0.00049	mg/L		05/22/17 16:22	05/23/17 14:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:18	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:22	05/23/17 14:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:18	5
Calcium	**0.37**		0.25	0.13	mg/L		05/22/17 16:22	05/23/17 14:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:22	05/23/17 14:18	5
Cobalt	**0.00046**	**I**	0.0025	0.00040	mg/L		05/22/17 16:22	05/23/17 14:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:22	05/23/17 14:18	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:22	05/23/17 14:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:22	05/23/17 14:18	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:22	05/23/17 14:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:22	05/23/17 14:18	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		05/22/17 09:50	05/24/17 13:53	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			05/17/17 16:56	1
Chloride	**4.7**		2.0	0.60	mg/L			05/18/17 09:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 11:42	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 09:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.63**				SU			05/15/17 10:37	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-108
Date Collected: 05/15/17 09:22
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-3
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		05/22/17 16:22	05/23/17 14:22	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:22	05/23/17 14:22	5
Barium	**0.0089**		0.0025	0.00049	mg/L		05/22/17 16:22	05/23/17 14:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:22	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:22	05/23/17 14:22	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:22	5
Calcium	**1.0**		0.25	0.13	mg/L		05/22/17 16:22	05/23/17 14:22	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:22	05/23/17 14:22	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:22	05/23/17 14:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:22	05/23/17 14:22	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:22	05/23/17 14:22	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:22	05/23/17 14:22	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:22	05/23/17 14:22	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:22	05/23/17 14:22	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		05/22/17 09:50	05/24/17 14:03	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			05/17/17 16:56	1
Chloride	**6.1**		2.0	0.60	mg/L			05/18/17 12:06	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 11:46	1
Sulfate	**1.9**	**I**	5.0	1.4	mg/L			05/18/17 12:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.52**				SU			05/15/17 09:22	1

Client Sample ID: MW-306

Date Collected: 05/15/17 13:33
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-4

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		05/22/17 16:22	05/23/17 14:27	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:22	05/23/17 14:27	5
Barium	**0.012**		0.0025	0.00049	mg/L		05/22/17 16:22	05/23/17 14:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:27	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:22	05/23/17 14:27	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:27	5
Calcium	**0.58**		0.25	0.13	mg/L		05/22/17 16:22	05/23/17 14:27	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:22	05/23/17 14:27	5
Cobalt	**0.00075**	**I**	0.0025	0.00040	mg/L		05/22/17 16:22	05/23/17 14:27	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:22	05/23/17 14:27	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:22	05/23/17 14:27	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:22	05/23/17 14:27	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:22	05/23/17 14:27	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:22	05/23/17 14:27	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		05/22/17 09:50	05/24/17 14:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6.0**		5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**5.2**		2.0	0.60	mg/L			05/18/17 12:06	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 11:53	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 12:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.69**				SU			05/15/17 13:33	1

Client Sample ID: MW-307

Date Collected: 05/15/17 12:38
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-5

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		05/22/17 16:22	05/23/17 14:32	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:22	05/23/17 14:32	5
Barium	**0.015**		0.0025	0.00049	mg/L		05/22/17 16:22	05/23/17 14:32	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:32	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:22	05/23/17 14:32	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:22	05/23/17 14:32	5
Calcium	**0.83**		0.25	0.13	mg/L		05/22/17 16:22	05/23/17 14:32	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:22	05/23/17 14:32	5
Cobalt	**0.00046**	**I**	0.0025	0.00040	mg/L		05/22/17 16:22	05/23/17 14:32	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:22	05/23/17 14:32	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:22	05/23/17 14:32	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:22	05/23/17 14:32	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:22	05/23/17 14:32	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:22	05/23/17 14:32	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		05/22/17 09:51	05/24/17 14:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4.0**	**I**	5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**3.7**		2.0	0.60	mg/L			05/18/17 12:06	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 12:15	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 12:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.42**				SU			05/15/17 12:38	1

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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 Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 05/15/17 11:44
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:22	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:14	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354000	05/18/17 09:33	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 11:39	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354001	05/18/17 09:14	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/15/17 11:44	BWS	TAL PEN

Client Sample ID: MW-107
Date Collected: 05/15/17 10:37
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:22	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:18	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354000	05/18/17 09:33	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 11:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354001	05/18/17 09:14	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/15/17 10:37	BWS	TAL PEN

Client Sample ID: MW-108
Date Collected: 05/15/17 09:22
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:22	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:22	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 14:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 12:06	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 11:46	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:04	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/15/17 09:22	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

Client Sample ID: MW-306

Date Collected: 05/15/17 13:33
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:22	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:27	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 14:04	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 12:06	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 11:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:07	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/15/17 13:33	BWS	TAL PEN

Client Sample ID: MW-307

Date Collected: 05/15/17 12:38
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:22	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:32	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 14:06	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 12:06	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 12:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:07	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/15/17 12:38	BWS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 354405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	7470A	
400-137980-2	MW-107	Total/NA	Water	7470A	
400-137980-3	MW-108	Total/NA	Water	7470A	
400-137980-4	MW-306	Total/NA	Water	7470A	
400-137980-5	MW-307	Total/NA	Water	7470A	
MB 400-354405/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-354405/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-137995-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-137995-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 354493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total Recoverable	Water	3005A	
400-137980-2	MW-107	Total Recoverable	Water	3005A	
400-137980-3	MW-108	Total Recoverable	Water	3005A	
400-137980-4	MW-306	Total Recoverable	Water	3005A	
400-137980-5	MW-307	Total Recoverable	Water	3005A	
MB 400-354493/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-354493/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-137886-B-16-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-137886-B-16-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 354767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total Recoverable	Water	6020	354493
400-137980-2	MW-107	Total Recoverable	Water	6020	354493
400-137980-3	MW-108	Total Recoverable	Water	6020	354493
400-137980-4	MW-306	Total Recoverable	Water	6020	354493
400-137980-5	MW-307	Total Recoverable	Water	6020	354493
MB 400-354493/1-A ^5	Method Blank	Total Recoverable	Water	6020	354493
LCS 400-354493/2-A	Lab Control Sample	Total Recoverable	Water	6020	354493
400-137886-B-16-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	354493
400-137886-B-16-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	354493

Analysis Batch: 354820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	7470A	354405
400-137980-2	MW-107	Total/NA	Water	7470A	354405
400-137980-3	MW-108	Total/NA	Water	7470A	354405
400-137980-4	MW-306	Total/NA	Water	7470A	354405
400-137980-5	MW-307	Total/NA	Water	7470A	354405
MB 400-354405/14-A	Method Blank	Total/NA	Water	7470A	354405
LCS 400-354405/15-A	Lab Control Sample	Total/NA	Water	7470A	354405
400-137995-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	354405
400-137995-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	354405

General Chemistry

Analysis Batch: 353873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	SM 2540C	
400-137980-2	MW-107	Total/NA	Water	SM 2540C	
400-137980-3	MW-108	Total/NA	Water	SM 2540C	
400-137980-4	MW-306	Total/NA	Water	SM 2540C	
400-137980-5	MW-307	Total/NA	Water	SM 2540C	
MB 400-353873/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-353873/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137980-1 DU	MW-100	Total/NA	Water	SM 2540C	

Analysis Batch: 354000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-137980-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
MB 400-354000/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-354000/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-354000/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-137928-A-30 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-137928-A-30 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 354001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-137980-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
MB 400-354001/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-354001/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-354001/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137928-A-36 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-137928-A-36 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 354059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-137980-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-137980-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
MB 400-354059/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-354059/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-354059/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138005-F-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-138005-F-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 354060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-137980-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-137980-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
MB 400-354060/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-354060/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-354060/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137960-D-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-137960-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 355443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	SM 4500 F C	
400-137980-2	MW-107	Total/NA	Water	SM 4500 F C	
400-137980-3	MW-108	Total/NA	Water	SM 4500 F C	
400-137980-4	MW-306	Total/NA	Water	SM 4500 F C	
400-137980-5	MW-307	Total/NA	Water	SM 4500 F C	
MB 400-355443/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355443/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137928-A-36 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-137928-A-36 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-137980-4 DU	MW-306	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 356265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	Field Sampling	
400-137980-2	MW-107	Total/NA	Water	Field Sampling	
400-137980-3	MW-108	Total/NA	Water	Field Sampling	
400-137980-4	MW-306	Total/NA	Water	Field Sampling	
400-137980-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-354493/1-A ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/22/17 16:01	05/23/17 13:06	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:01	05/23/17 13:06	5
Barium	0.000555	I	0.0025	0.00049	mg/L		05/22/17 16:01	05/23/17 13:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:01	05/23/17 13:06	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:01	05/23/17 13:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:01	05/23/17 13:06	5
Calcium	0.13	U	0.25	0.13	mg/L		05/22/17 16:01	05/23/17 13:06	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:01	05/23/17 13:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:01	05/23/17 13:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:01	05/23/17 13:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:01	05/23/17 13:06	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:01	05/23/17 13:06	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:01	05/23/17 13:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:01	05/23/17 13:06	5

Lab Sample ID: LCS 400-354493/2-A
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0551		mg/L		110	80 - 120
Arsenic	0.0500	0.0527		mg/L		105	80 - 120
Barium	0.0500	0.0479		mg/L		96	80 - 120
Beryllium	0.0500	0.0534		mg/L		107	80 - 120
Boron	0.100	0.0980		mg/L		98	80 - 120
Cadmium	0.0500	0.0526		mg/L		105	80 - 120
Calcium	5.00	4.56		mg/L		91	80 - 120
Chromium	0.0500	0.0495		mg/L		99	80 - 120
Cobalt	0.0500	0.0525		mg/L		105	80 - 120
Lead	0.0500	0.0524		mg/L		105	80 - 120
Lithium	0.0500	0.0540		mg/L		108	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Selenium	0.0500	0.0515		mg/L		103	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

Lab Sample ID: 400-137886-B-16-C MS ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0573		mg/L		115	75 - 125
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125
Barium	0.00049	U	0.0500	0.0477		mg/L		95	75 - 125
Beryllium	0.00034	U	0.0500	0.0537		mg/L		107	75 - 125
Boron	0.021	U	0.100	0.103		mg/L		103	75 - 125
Cadmium	0.00034	U	0.0500	0.0529		mg/L		106	75 - 125
Calcium	0.13	U	5.00	4.72		mg/L		94	75 - 125
Chromium	0.0011	U	0.0500	0.0513		mg/L		103	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-137886-B-16-C MS ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0511		mg/L		102	75 - 125
Lead	0.00035	U	0.0500	0.0517		mg/L		103	75 - 125
Lithium	0.0032	U	0.0500	0.0465		mg/L		93	75 - 125
Molybdenum	0.0026	I	0.100	0.107		mg/L		105	75 - 125
Selenium	0.0015		0.0500	0.0541		mg/L		105	75 - 125
Thallium	0.000085	U	0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 400-137886-B-16-D MSD ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 354493

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	0.0562		mg/L		112	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0538		mg/L		108	75 - 125	1	20
Barium	0.00049	U	0.0500	0.0474		mg/L		95	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0537		mg/L		107	75 - 125	0	20
Boron	0.021	U	0.100	0.104		mg/L		104	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0529		mg/L		106	75 - 125	0	20
Calcium	0.13	U	5.00	4.66		mg/L		93	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0512		mg/L		102	75 - 125	0	20
Cobalt	0.00040	U	0.0500	0.0507		mg/L		101	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0514		mg/L		103	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0472		mg/L		94	75 - 125	2	20
Molybdenum	0.0026	I	0.100	0.105		mg/L		103	75 - 125	2	20
Selenium	0.0015		0.0500	0.0530		mg/L		103	75 - 125	2	20
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-354405/14-A
Matrix: Water
Analysis Batch: 354820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354405

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/22/17 09:45	05/24/17 13:19	1

Lab Sample ID: LCS 400-354405/15-A
Matrix: Water
Analysis Batch: 354820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354405

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: 400-137995-C-1-B MS
Matrix: Water
Analysis Batch: 354820

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 354405

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00202		mg/L		100	80 - 120

Lab Sample ID: 400-137995-C-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354820 — **Prep Batch: 354405**

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	0.00204		mg/L		102	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-353873/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 353873

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			05/17/17 16:56	1

Lab Sample ID: LCS 400-353873/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 353873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	294		mg/L		100	78 - 122

Lab Sample ID: 400-137980-1 DU — **Client Sample ID: MW-100**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 353873

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3.4	U	3.4	U	mg/L		NC	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-354000/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354000

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/18/17 08:11	1

Lab Sample ID: LCS 400-354000/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.0		mg/L		103	90 - 110

Lab Sample ID: MRL 400-354000/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354000

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.28		mg/L		114	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-137928-A-30 MS
Matrix: Water
Analysis Batch: 354000

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	19		10.0	27.9		mg/L		86	73 - 120

Lab Sample ID: 400-137928-A-30 MSD
Matrix: Water
Analysis Batch: 354000

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	19		10.0	28.0		mg/L		88	73 - 120	1	8

Lab Sample ID: MB 400-354059/6
Matrix: Water
Analysis Batch: 354059

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/18/17 11:21	1

Lab Sample ID: LCS 400-354059/7
Matrix: Water
Analysis Batch: 354059

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	32.0		mg/L		107	90 - 110

Lab Sample ID: MRL 400-354059/3
Matrix: Water
Analysis Batch: 354059

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	1.89	I	mg/L		95	50 - 150

Lab Sample ID: 400-138005-F-3 MS
Matrix: Water
Analysis Batch: 354059

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	18		10.0	25.3		mg/L		75	73 - 120

Lab Sample ID: 400-138005-F-3 MSD
Matrix: Water
Analysis Batch: 354059

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	18		10.0	25.3		mg/L		74	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-355443/3
Matrix: Water
Analysis Batch: 355443

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			05/31/17 11:17	1

Lab Sample ID: LCS 400-355443/4
Matrix: Water
Analysis Batch: 355443

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	3.65		mg/L		91	90 - 110

Lab Sample ID: 400-137928-A-36 MS
Matrix: Water
Analysis Batch: 355443

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	0.930		mg/L		93	75 - 125

Lab Sample ID: 400-137928-A-36 MSD
Matrix: Water
Analysis Batch: 355443

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	0.930		mg/L		93	75 - 125	0	4

Lab Sample ID: 400-137980-4 DU
Matrix: Water
Analysis Batch: 355443

Client Sample ID: MW-306
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 400-354001/6
Matrix: Water
Analysis Batch: 354001

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			05/18/17 08:13	1

Lab Sample ID: LCS 400-354001/7
Matrix: Water
Analysis Batch: 354001

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	13.8		mg/L		92	90 - 110

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-354001/3
Matrix: Water
Analysis Batch: 354001

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	4.15	I	mg/L		83	50 - 150

Lab Sample ID: 400-137928-A-36 MS
Matrix: Water
Analysis Batch: 354001

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	1.4	U	10.0	17.6	J3	mg/L		176	77 - 128

Lab Sample ID: 400-137928-A-36 MSD
Matrix: Water
Analysis Batch: 354001

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	1.4	U	10.0	18.0	J3	mg/L		180	77 - 128	2	5

Lab Sample ID: MB 400-354060/6
Matrix: Water
Analysis Batch: 354060

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			05/18/17 11:23	1

Lab Sample ID: LCS 400-354060/7
Matrix: Water
Analysis Batch: 354060

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	14.1		mg/L		94	90 - 110

Lab Sample ID: MRL 400-354060/3
Matrix: Water
Analysis Batch: 354060

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	4.16	I	mg/L		83	50 - 150

Lab Sample ID: 400-137960-D-3 MS
Matrix: Water
Analysis Batch: 354060

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	970		400	967	J3	mg/L		-1	77 - 128

Lab Sample ID: 400-137960-D-3 MSD
Matrix: Water
Analysis Batch: 354060

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	970		400	950	J3	mg/L		-5	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: Brett Sukes	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	SSOW#:			

Analysis Requested

400-137980 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-100	5/15/17	1144	G	Water			Y	X	X	X		
MW-107	5/15/17	0937	G	Water			Y	X	X	X		
MW-108	5/15/17	0922	G	Water			X	X	X	X		
MW-306	5/15/17	1333	G	Water			X	X	X	X		
MW-307	5/15/17	1238	G	Water			Y	X	X	X		
~~Dup-01~~ no sample	~~5/15/17~~		~~G~~	~~W~~			~~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
		5/15/17 1554	JDH		5/15/17 1554	TA-Pen
	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: 0.0 C IR2

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-137980-1
SDG Number: Background

Login Number: 137980
List Number: 1
Creator: Perez, Trina M

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	0.0°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-137980-1
SDG: Background

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-137980-2
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/16/2017 9:48:56 AM

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
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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 11
Chronicle 12
QC Association 14
QC Sample Results 15
Chain of Custody 17
Receipt Checklists 18
Certification Summary 19

Job ID: 400-137980-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-137980-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-309827. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
MW-100 (400-137980-1), MW-107 (400-137980-2), MW-108 (400-137980-3), MW-306 (400-137980-4) and MW-307 (400-137980-5)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-309817. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
MW-100 (400-137980-1), MW-107 (400-137980-2), MW-108 (400-137980-3), MW-306 (400-137980-4) and MW-307 (400-137980-5)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137980-1	MW-100	Water	05/15/17 11:44	05/15/17 15:54
400-137980-2	MW-107	Water	05/15/17 10:37	05/15/17 15:54
400-137980-3	MW-108	Water	05/15/17 09:22	05/15/17 15:54
400-137980-4	MW-306	Water	05/15/17 13:33	05/15/17 15:54
400-137980-5	MW-307	Water	05/15/17 12:38	05/15/17 15:54

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 05/15/17 11:44
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-1
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	0.185		0.0815	0.0832	1.00	0.0907	pCi/L	05/22/17 12:49	06/13/17 05:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.601		0.254	0.260	1.00	0.364	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*87.9*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	0.786		0.267	0.273	5.00	0.364	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-107
Date Collected: 05/15/17 10:37
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-2
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	**0.271**		0.113	0.116	1.00	0.123	pCi/L	05/22/17 12:49	06/13/17 05:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.7*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.296	0.298	1.00	0.462	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.7*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*97.9*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	**0.685**		0.316	0.320	5.00	0.462	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-108

Date Collected: 05/15/17 09:22
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-3

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	0.342		0.0987	0.103	1.00	0.0816	pCi/L	05/22/17 12:49	06/13/17 05:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.06		0.261	0.278	1.00	0.312	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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		0.279	0.297	5.00	0.312	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-306

Date Collected: 05/15/17 13:33
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-4

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	**0.250**		0.0915	0.0942	1.00	0.0886	pCi/L	05/22/17 12:49	06/13/17 05:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.302	U	0.241	0.243	1.00	0.382	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*86.7*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	**0.553**		0.258	0.260	5.00	0.382	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-307
Date Collected: 05/15/17 12:38
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-5
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	0.131		0.0683	0.0693	1.00	0.0793	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*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	0.205	0.206	1.00	0.332	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*90.1*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	0.345		0.216	0.218	5.00	0.332	pCi/L		06/14/17 11:06	1

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 Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 05/15/17 11:44
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: MW-107
Date Collected: 05/15/17 10:37
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: MW-108
Date Collected: 05/15/17 09:22
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: MW-306
Date Collected: 05/15/17 13:33
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

Client Sample ID: MW-307

Date Collected: 05/15/17 12:38
Date Received: 05/15/17 15:54

Lab Sample ID: 400-137980-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Laboratory References:

TAL SL = 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 Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

Rad

Prep Batch: 309817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	PrecSep-21	
400-137980-2	MW-107	Total/NA	Water	PrecSep-21	
400-137980-3	MW-108	Total/NA	Water	PrecSep-21	
400-137980-4	MW-306	Total/NA	Water	PrecSep-21	
400-137980-5	MW-307	Total/NA	Water	PrecSep-21	
MB 160-309817/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-309817/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-309817/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 309827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137980-1	MW-100	Total/NA	Water	PrecSep_0	
400-137980-2	MW-107	Total/NA	Water	PrecSep_0	
400-137980-3	MW-108	Total/NA	Water	PrecSep_0	
400-137980-4	MW-306	Total/NA	Water	PrecSep_0	
400-137980-5	MW-307	Total/NA	Water	PrecSep_0	
MB 160-309827/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-309827/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-309827/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-309817/1-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309817

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02237	U	0.0563	0.0564	1.00	0.103	pCi/L	05/22/17 12:49	06/13/17 05:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:43*	*1*

Lab Sample ID: LCS 160-309817/2-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309817

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.64		1.09	1.00	0.0879	pCi/L	94	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*40 - 110*

Lab Sample ID: LCSD 160-309817/3-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309817

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.920		1.03	1.00	0.105	pCi/L	87	68 - 137	0.34	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-309827/1-A
Matrix: Water
Analysis Batch: 311619

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309827

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.04271	U	0.223	0.223	1.00	0.390	pCi/L	05/22/17 14:10	06/02/17 15:00	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:00*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:00*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-309827/2-A
Matrix: Water
Analysis Batch: 311619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309827

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.4	13.39		1.45	1.00	0.410	pCi/L	100	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*40 - 110*
Y Carrier	*90.5*		*40 - 110*

Lab Sample ID: LCSD 160-309827/3-A
Matrix: Water
Analysis Batch: 311619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309827

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.4	12.56		1.37	1.00	0.386	pCi/L	94	56 - 140	0.30	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*
Y Carrier	*89.0*		*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 Sukes	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Background	SSOW#:			

Analysis Requested

400-137980 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-100	5/15/17	1144	G	Water			Y	X	X	X		
MW-107	5/15/17	0937	G	Water			Y	X	X	X		
MW-108	5/15/17	0922	G	Water			X	X	X	X		
MW-306	5/15/17	1333	G	Water			X	X	X	X		
MW-307	5/15/17	1238	G	Water			Y	X	X	X		
~~Dup-01~~ no sample	~~5/15/17~~		~~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
		5/15/17 1554	JDH		5/15/17 1554	TA-Pen
	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: 0.0 C IR2

6/16/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-137980-2
SDG Number: Background

Login Number: 137980
List Number: 1
Creator: Perez, Trina M

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	0.0°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137980-2
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-137995-1
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/8/2017 6:38:54 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 24
Chain of Custody 30
Receipt Checklists 31
Certification Summary 32

Job ID: 400-137995-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-137995-1

Metals

Method(s) 6020: The method blank for preparation batch 354493 and analytical batch 354750 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(s) 6020: The method blank for preparation batch 354493 and analytical batch 354767 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(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-137995-2), MW-308 (400-137995-5) and DUP-01 (400-137995-6). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-137995-2), MW-304 (400-137995-3) and DUP-01 (400-137995-6). 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-303 (400-137995-2), MW-304 (400-137995-3), MW-308 (400-137995-5) and DUP-01 (400-137995-6). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354060 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Client Sample ID: MW-300 — Lab Sample ID: 400-137995-1

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	0.48		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	8.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.53				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-137995-2

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	0.028		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.00045	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	63		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00079	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.025		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0064		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00022	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.2		0.25	0.11	mg/L	25		6020	Total Recoverable
Molybdenum - DL	1.2		0.075	0.0043	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	120		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.20		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.15				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-137995-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00094	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	2.0		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	120		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0067		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Molybdenum	0.0066	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Selenium	0.0029		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.000095	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-304 (Continued) — Lab Sample ID: 400-137995-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00042		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	850		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	120		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	410		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.36				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-137995-4

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
Boron	0.043	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.66		0.25	0.13	mg/L	5		6020	Total Recoverable
Molybdenum	0.0014	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.53				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-137995-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	64		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0058		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00027	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.9		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	430		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	39		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	200		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	6.13				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-137995-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0013		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.00051	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	63		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00081	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-01 (Continued) — Lab Sample ID: 400-137995-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.026		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0066		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00022	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	3.3		0.25	0.11	mg/L	25		6020	Total Recoverable
Molybdenum - DL	1.2		0.075	0.0043	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	510		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	110		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.21		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-137995-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.0067	I	0.015	0.00085	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-01 — Lab Sample ID: 400-137995-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00086	I V	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Molybdenum	0.0016	I	0.015	0.00085	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

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

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 Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137995-1	MW-300	Water	05/16/17 12:08	05/16/17 14:38
400-137995-2	MW-303	Water	05/15/17 14:43	05/16/17 14:38
400-137995-3	MW-304	Water	05/16/17 10:18	05/16/17 14:38
400-137995-4	MW-305	Water	05/16/17 11:03	05/16/17 14:38
400-137995-5	MW-308	Water	05/16/17 09:18	05/16/17 14:38
400-137995-6	DUP-01	Water	05/15/17 13:43	05/16/17 14:38
400-137995-7	EB-01	Water	05/16/17 12:15	05/16/17 14:38
400-137995-8	FB-01	Water	05/16/17 10:50	05/16/17 14:38

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Client Sample ID: MW-300

Date Collected: 05/16/17 12:08
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-1

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		05/22/17 16:25	05/23/17 14:36	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 14:36	5
Barium	**0.011**		0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 14:36	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:36	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:25	05/23/17 14:36	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:36	5
Calcium	**0.48**		0.25	0.13	mg/L		05/22/17 16:25	05/23/17 14:36	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 14:36	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 14:36	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 14:36	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 14:36	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:25	05/23/17 14:36	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 14:36	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 14:36	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		05/22/17 09:50	05/24/17 13:22	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			05/17/17 16:56	1
Chloride	**8.9**		2.0	0.60	mg/L			05/18/17 11:57	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 12:22	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 12:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.53**				SU			05/16/17 12:08	1

Client Sample ID: MW-303

Date Collected: 05/15/17 14:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-2

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		05/22/17 16:25	05/23/17 14:41	5
Arsenic	**0.0012**	**I**	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 14:41	5
Barium	**0.028**		0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 14:41	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:41	5
Cadmium	**0.00045**	**I**	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:41	5
Calcium	**63**		0.25	0.13	mg/L		05/22/17 16:25	05/23/17 14:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 14:41	5
Cobalt	**0.00079**	**I**	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 14:41	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 14:41	5
Lithium	**0.025**		0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 14:41	5
Selenium	**0.0064**		0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 14:41	5
Thallium	**0.00022**	**I**	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 14:41	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.2**		0.25	0.11	mg/L		05/22/17 16:25	05/24/17 13:14	25
Molybdenum	**1.2**		0.075	0.0043	mg/L		05/22/17 16:25	05/24/17 13:14	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		05/22/17 09:50	05/24/17 13:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**500**		5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**120**		20	6.0	mg/L			05/18/17 13:07	10
Fluoride	**0.20**		0.10	0.032	mg/L			05/31/17 12:24	1
Sulfate	**190**		50	14	mg/L			05/18/17 13:13	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.15**				SU			05/15/17 14:43	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Client Sample ID: MW-304
Date Collected: 05/16/17 10:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-3
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		05/22/17 16:25	05/23/17 14:45	5
Arsenic	**0.00094**	**I**	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 14:45	5
Barium	**0.026**		0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 14:45	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:45	5
Boron	**2.0**		0.050	0.021	mg/L		05/22/17 16:25	05/23/17 14:45	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:45	5
Calcium	**120**		0.25	0.13	mg/L		05/22/17 16:25	05/23/17 14:45	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 14:45	5
Cobalt	**0.0067**		0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 14:45	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 14:45	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 14:45	5
Molybdenum	**0.0066**	**I**	0.015	0.00085	mg/L		05/22/17 16:25	05/23/17 14:45	5
Selenium	**0.0029**		0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 14:45	5
Thallium	**0.000095**	**I**	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 14:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00042**		0.00020	0.000070	mg/L		05/22/17 09:50	05/24/17 13:39	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**850**		5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**120**		20	6.0	mg/L			05/18/17 13:15	10
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			05/31/17 12:26	1
Sulfate	**410**		100	28	mg/L			05/18/17 13:13	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.36**				SU			05/16/17 10:18	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Client Sample ID: MW-305

Date Collected: 05/16/17 11:03
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-4

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		05/22/17 16:25	05/23/17 14:50	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 14:50	5
Barium	**0.016**		0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 14:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:50	5
Boron	**0.043**	**I**	0.050	0.021	mg/L		05/22/17 16:25	05/23/17 14:50	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:50	5
Calcium	**0.66**		0.25	0.13	mg/L		05/22/17 16:25	05/23/17 14:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 14:50	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 14:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 14:50	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 14:50	5
Molybdenum	**0.0014**	**I**	0.015	0.00085	mg/L		05/22/17 16:25	05/23/17 14:50	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 14:50	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 14:50	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		05/22/17 09:50	05/24/17 13:41	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**18**		5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**7.8**		2.0	0.60	mg/L			05/18/17 11:57	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 12:29	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 12:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.53**				SU			05/16/17 11:03	1

Client Sample ID: MW-308

Date Collected: 05/16/17 09:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-5

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		05/22/17 16:25	05/23/17 14:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 14:54	5
Barium	**0.020**		0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 14:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 14:54	5
Calcium	**64**		0.25	0.13	mg/L		05/22/17 16:25	05/23/17 14:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 14:54	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 14:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 14:54	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 14:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:25	05/23/17 14:54	5
Selenium	**0.0058**		0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 14:54	5
Thallium	**0.00027**	**I**	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 14:54	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.9**		0.25	0.11	mg/L		05/22/17 16:25	05/24/17 13:19	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		05/22/17 09:50	05/24/17 13:42	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**430**		5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**39**		2.0	0.60	mg/L			05/18/17 11:57	1
Fluoride	**0.090**	**I**	0.10	0.032	mg/L			05/31/17 14:42	1
Sulfate	**200**		50	14	mg/L			05/18/17 13:16	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.13**				SU			05/16/17 09:18	1

Client Sample ID: DUP-01

Date Collected: 05/15/17 13:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-6

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		05/22/17 16:25	05/23/17 15:17	5
Arsenic	**0.0013**		0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 15:17	5
Barium	**0.029**		0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 15:17	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 15:17	5
Cadmium	**0.00051**	**I**	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 15:17	5
Calcium	**63**		0.25	0.13	mg/L		05/22/17 16:25	05/23/17 15:17	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 15:17	5
Cobalt	**0.00081**	**I**	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 15:17	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 15:17	5
Lithium	**0.026**		0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 15:17	5
Selenium	**0.0066**		0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 15:17	5
Thallium	**0.00022**	**I**	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 15:17	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**3.3**		0.25	0.11	mg/L		05/22/17 16:25	05/24/17 13:23	25
Molybdenum	**1.2**		0.075	0.0043	mg/L		05/22/17 16:25	05/24/17 13:23	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		05/22/17 09:50	05/24/17 13:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**510**		5.0	3.4	mg/L			05/17/17 16:56	1
Chloride	**110**		20	6.0	mg/L			05/18/17 13:07	10
Fluoride	**0.21**		0.10	0.032	mg/L			05/31/17 14:48	1
Sulfate	**190**		50	14	mg/L			05/18/17 13:13	10

Client Sample ID: EB-01

Date Collected: 05/16/17 12:15
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-7

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		05/22/17 16:25	05/23/17 15:22	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 15:22	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 15:22	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 15:22	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:25	05/23/17 15:22	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 15:22	5
Calcium	0.13	U	0.25	0.13	mg/L		05/22/17 16:25	05/23/17 15:22	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 15:22	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 15:22	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 15:22	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 15:22	5
Molybdenum	**0.0067**	**I**	0.015	0.00085	mg/L		05/22/17 16:25	05/23/17 15:22	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 15:22	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 15:22	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		05/22/17 09:50	05/24/17 13:46	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			05/17/17 16:56	1
Chloride	0.60	U	2.0	0.60	mg/L			05/18/17 11:57	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 14:50	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 12:04	1

Client Sample ID: FB-01

Date Collected: 05/16/17 10:50
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-8

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		05/22/17 16:25	05/23/17 15:27	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:25	05/23/17 15:27	5
Barium	**0.00086**	**I V**	0.0025	0.00049	mg/L		05/22/17 16:25	05/23/17 15:27	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 15:27	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:25	05/23/17 15:27	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:25	05/23/17 15:27	5
Calcium	0.13	U	0.25	0.13	mg/L		05/22/17 16:25	05/23/17 15:27	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:25	05/23/17 15:27	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:25	05/23/17 15:27	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:25	05/23/17 15:27	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:25	05/23/17 15:27	5
Molybdenum	**0.0016**	**I**	0.015	0.00085	mg/L		05/22/17 16:25	05/23/17 15:27	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:25	05/23/17 15:27	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:25	05/23/17 15:27	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		05/22/17 09:50	05/24/17 13:48	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			05/17/17 16:56	1
Chloride	0.60	U	2.0	0.60	mg/L			05/18/17 11:57	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 14:53	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/18/17 12:04	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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
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.
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 Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Client Sample ID: MW-300

Lab Sample ID: 400-137995-1

Date Collected: 05/16/17 12:08

Matrix: Water

Date Received: 05/16/17 14:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:36	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 11:57	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 12:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:04	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/16/17 12:08	BWS	TAL PEN

Client Sample ID: MW-303

Lab Sample ID: 400-137995-2

Date Collected: 05/15/17 14:43

Matrix: Water

Date Received: 05/16/17 14:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:41	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	25	354912	05/24/17 13:14	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:37	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	354059	05/18/17 13:07	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 12:24	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354060	05/18/17 13:13	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/15/17 14:43	BWS	TAL PEN

Client Sample ID: MW-304

Lab Sample ID: 400-137995-3

Date Collected: 05/16/17 10:18

Matrix: Water

Date Received: 05/16/17 14:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:45	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:39	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	354059	05/18/17 13:15	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 12:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	354060	05/18/17 13:13	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/16/17 10:18	BWS	TAL PEN

Client Sample ID: MW-305

Date Collected: 05/16/17 11:03
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:50	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 11:57	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355443	05/31/17 12:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:04	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/16/17 11:03	BWS	TAL PEN

Client Sample ID: MW-308

Date Collected: 05/16/17 09:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 14:54	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	25	354912	05/24/17 13:19	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 11:57	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 14:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354060	05/18/17 13:16	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/16/17 09:18	BWS	TAL PEN

Client Sample ID: DUP-01

Date Collected: 05/15/17 13:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 15:17	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	25	354912	05/24/17 13:23	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	354059	05/18/17 13:07	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 14:48	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354060	05/18/17 13:13	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

Client Sample ID: EB-01

Date Collected: 05/16/17 12:15
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 15:22	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 11:57	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 14:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:04	BJB	TAL PEN

Client Sample ID: FB-01

Date Collected: 05/16/17 10:50
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354493	05/22/17 16:25	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354767	05/23/17 15:27	DRE	TAL PEN
Total/NA	Prep	7470A			354405	05/22/17 09:50	JAP	TAL PEN
Total/NA	Analysis	7470A		1	354820	05/24/17 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	353873	05/17/17 16:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354059	05/18/17 11:57	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 14:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354060	05/18/17 12:04	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 354405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	7470A	
400-137995-2	MW-303	Total/NA	Water	7470A	
400-137995-3	MW-304	Total/NA	Water	7470A	
400-137995-4	MW-305	Total/NA	Water	7470A	
400-137995-5	MW-308	Total/NA	Water	7470A	
400-137995-6	DUP-01	Total/NA	Water	7470A	
400-137995-7	EB-01	Total/NA	Water	7470A	
400-137995-8	FB-01	Total/NA	Water	7470A	
MB 400-354405/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-354405/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-137995-1 MS	MW-300	Total/NA	Water	7470A	
400-137995-1 MSD	MW-300	Total/NA	Water	7470A	

Prep Batch: 354493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total Recoverable	Water	3005A	
400-137995-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-137995-2	MW-303	Total Recoverable	Water	3005A	
400-137995-3	MW-304	Total Recoverable	Water	3005A	
400-137995-4	MW-305	Total Recoverable	Water	3005A	
400-137995-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-137995-5	MW-308	Total Recoverable	Water	3005A	
400-137995-6 - DL	DUP-01	Total Recoverable	Water	3005A	
400-137995-6	DUP-01	Total Recoverable	Water	3005A	
400-137995-7	EB-01	Total Recoverable	Water	3005A	
400-137995-8	FB-01	Total Recoverable	Water	3005A	
MB 400-354493/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-354493/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-137886-B-16-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-137886-B-16-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 354767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total Recoverable	Water	6020	354493
400-137995-2	MW-303	Total Recoverable	Water	6020	354493
400-137995-3	MW-304	Total Recoverable	Water	6020	354493
400-137995-4	MW-305	Total Recoverable	Water	6020	354493
400-137995-5	MW-308	Total Recoverable	Water	6020	354493
400-137995-6	DUP-01	Total Recoverable	Water	6020	354493
400-137995-7	EB-01	Total Recoverable	Water	6020	354493
400-137995-8	FB-01	Total Recoverable	Water	6020	354493
MB 400-354493/1-A ^5	Method Blank	Total Recoverable	Water	6020	354493
LCS 400-354493/2-A	Lab Control Sample	Total Recoverable	Water	6020	354493
400-137886-B-16-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	354493
400-137886-B-16-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	354493

Analysis Batch: 354820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	7470A	354405
400-137995-2	MW-303	Total/NA	Water	7470A	354405
400-137995-3	MW-304	Total/NA	Water	7470A	354405

Metals (Continued)

Analysis Batch: 354820 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-4	MW-305	Total/NA	Water	7470A	354405
400-137995-5	MW-308	Total/NA	Water	7470A	354405
400-137995-6	DUP-01	Total/NA	Water	7470A	354405
400-137995-7	EB-01	Total/NA	Water	7470A	354405
400-137995-8	FB-01	Total/NA	Water	7470A	354405
MB 400-354405/14-A	Method Blank	Total/NA	Water	7470A	354405
LCS 400-354405/15-A	Lab Control Sample	Total/NA	Water	7470A	354405
400-137995-1 MS	MW-300	Total/NA	Water	7470A	354405
400-137995-1 MSD	MW-300	Total/NA	Water	7470A	354405

Analysis Batch: 354912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-2 - DL	MW-303	Total Recoverable	Water	6020	354493
400-137995-5 - DL	MW-308	Total Recoverable	Water	6020	354493
400-137995-6 - DL	DUP-01	Total Recoverable	Water	6020	354493

General Chemistry

Analysis Batch: 353873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	SM 2540C	
400-137995-2	MW-303	Total/NA	Water	SM 2540C	
400-137995-3	MW-304	Total/NA	Water	SM 2540C	
400-137995-4	MW-305	Total/NA	Water	SM 2540C	
400-137995-5	MW-308	Total/NA	Water	SM 2540C	
400-137995-6	DUP-01	Total/NA	Water	SM 2540C	
400-137995-7	EB-01	Total/NA	Water	SM 2540C	
400-137995-8	FB-01	Total/NA	Water	SM 2540C	
MB 400-353873/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-353873/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-137911-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 354059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-137995-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-137995-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-137995-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-137995-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-137995-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-137995-7	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-137995-8	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-354059/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-354059/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-354059/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138005-F-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-138005-F-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 354060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-137995-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-137995-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-137995-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-137995-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-137995-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-137995-7	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-137995-8	FB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-354060/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-354060/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-354060/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137960-D-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-137960-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 355443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	SM 4500 F C	
400-137995-2	MW-303	Total/NA	Water	SM 4500 F C	
400-137995-3	MW-304	Total/NA	Water	SM 4500 F C	
400-137995-4	MW-305	Total/NA	Water	SM 4500 F C	
MB 400-355443/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355443/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137928-A-36 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-137928-A-36 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-137980-B-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 355495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-5	MW-308	Total/NA	Water	SM 4500 F C	
400-137995-6	DUP-01	Total/NA	Water	SM 4500 F C	
400-137995-7	EB-01	Total/NA	Water	SM 4500 F C	
400-137995-8	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-355495/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355495/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137995-5 MS	MW-308	Total/NA	Water	SM 4500 F C	
400-137995-5 MSD	MW-308	Total/NA	Water	SM 4500 F C	
400-138007-H-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 356265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	Field Sampling	
400-137995-2	MW-303	Total/NA	Water	Field Sampling	
400-137995-3	MW-304	Total/NA	Water	Field Sampling	
400-137995-4	MW-305	Total/NA	Water	Field Sampling	
400-137995-5	MW-308	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-354493/1-A ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/22/17 16:01	05/23/17 13:06	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/22/17 16:01	05/23/17 13:06	5
Barium	0.000555	I	0.0025	0.00049	mg/L		05/22/17 16:01	05/23/17 13:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:01	05/23/17 13:06	5
Boron	0.021	U	0.050	0.021	mg/L		05/22/17 16:01	05/23/17 13:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/22/17 16:01	05/23/17 13:06	5
Calcium	0.13	U	0.25	0.13	mg/L		05/22/17 16:01	05/23/17 13:06	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/22/17 16:01	05/23/17 13:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/22/17 16:01	05/23/17 13:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/22/17 16:01	05/23/17 13:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/22/17 16:01	05/23/17 13:06	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/22/17 16:01	05/23/17 13:06	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/22/17 16:01	05/23/17 13:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/22/17 16:01	05/23/17 13:06	5

Lab Sample ID: LCS 400-354493/2-A
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0551		mg/L		110	80 - 120
Arsenic	0.0500	0.0527		mg/L		105	80 - 120
Barium	0.0500	0.0479		mg/L		96	80 - 120
Beryllium	0.0500	0.0534		mg/L		107	80 - 120
Boron	0.100	0.0980		mg/L		98	80 - 120
Cadmium	0.0500	0.0526		mg/L		105	80 - 120
Calcium	5.00	4.56		mg/L		91	80 - 120
Chromium	0.0500	0.0495		mg/L		99	80 - 120
Cobalt	0.0500	0.0525		mg/L		105	80 - 120
Lead	0.0500	0.0524		mg/L		105	80 - 120
Lithium	0.0500	0.0540		mg/L		108	80 - 120
Molybdenum	0.100	0.103		mg/L		103	80 - 120
Selenium	0.0500	0.0515		mg/L		103	80 - 120
Thallium	0.0100	0.0107		mg/L		107	80 - 120

Lab Sample ID: 400-137886-B-16-C MS ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0573		mg/L		115	75 - 125
Arsenic	0.00046	U	0.0500	0.0541		mg/L		108	75 - 125
Barium	0.00049	U	0.0500	0.0477		mg/L		95	75 - 125
Beryllium	0.00034	U	0.0500	0.0537		mg/L		107	75 - 125
Boron	0.021	U	0.100	0.103		mg/L		103	75 - 125
Cadmium	0.00034	U	0.0500	0.0529		mg/L		106	75 - 125
Calcium	0.13	U	5.00	4.72		mg/L		94	75 - 125
Chromium	0.0011	U	0.0500	0.0513		mg/L		103	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-137886-B-16-C MS ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 354493

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0511		mg/L		102	75 - 125
Lead	0.00035	U	0.0500	0.0517		mg/L		103	75 - 125
Lithium	0.0032	U	0.0500	0.0465		mg/L		93	75 - 125
Molybdenum	0.0026	I	0.100	0.107		mg/L		105	75 - 125
Selenium	0.0015		0.0500	0.0541		mg/L		105	75 - 125
Thallium	0.000085	U	0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 400-137886-B-16-D MSD ^5
Matrix: Water
Analysis Batch: 354767

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 354493

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	0.0562		mg/L		112	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0538		mg/L		108	75 - 125	1	20
Barium	0.00049	U	0.0500	0.0474		mg/L		95	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0537		mg/L		107	75 - 125	0	20
Boron	0.021	U	0.100	0.104		mg/L		104	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0529		mg/L		106	75 - 125	0	20
Calcium	0.13	U	5.00	4.66		mg/L		93	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0512		mg/L		102	75 - 125	0	20
Cobalt	0.00040	U	0.0500	0.0507		mg/L		101	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0514		mg/L		103	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0472		mg/L		94	75 - 125	2	20
Molybdenum	0.0026	I	0.100	0.105		mg/L		103	75 - 125	2	20
Selenium	0.0015		0.0500	0.0530		mg/L		103	75 - 125	2	20
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-354405/14-A
Matrix: Water
Analysis Batch: 354820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354405

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/22/17 09:45	05/24/17 13:19	1

Lab Sample ID: LCS 400-354405/15-A
Matrix: Water
Analysis Batch: 354820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354405

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: 400-137995-1 MS
Matrix: Water
Analysis Batch: 354820

Client Sample ID: MW-300
Prep Type: Total/NA
Prep Batch: 354405

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00202		mg/L		100	80 - 120

Lab Sample ID: 400-137995-1 MSD — **Client Sample ID: MW-300**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354820 — **Prep Batch: 354405**

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	0.00204		mg/L		102	80 - 120	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-353873/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 353873

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			05/17/17 16:56	1

Lab Sample ID: LCS 400-353873/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 353873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	294		mg/L		100	78 - 122

Lab Sample ID: 400-137911-A-2 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 353873

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	52		52.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-354059/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354059

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/18/17 11:21	1

Lab Sample ID: LCS 400-354059/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.0		mg/L		107	90 - 110

Lab Sample ID: MRL 400-354059/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354059

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.89	I	mg/L		95	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-138005-F-3 MS
Matrix: Water
Analysis Batch: 354059

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	18		10.0	25.3		mg/L		75	73 - 120

Lab Sample ID: 400-138005-F-3 MSD
Matrix: Water
Analysis Batch: 354059

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	18		10.0	25.3		mg/L		74	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-355443/3
Matrix: Water
Analysis Batch: 355443

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			05/31/17 11:17	1

Lab Sample ID: LCS 400-355443/4
Matrix: Water
Analysis Batch: 355443

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	3.65		mg/L		91	90 - 110

Lab Sample ID: 400-137928-A-36 MS
Matrix: Water
Analysis Batch: 355443

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	0.930		mg/L		93	75 - 125

Lab Sample ID: 400-137928-A-36 MSD
Matrix: Water
Analysis Batch: 355443

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	0.930		mg/L		93	75 - 125	0	4

Lab Sample ID: 400-137980-B-4 DU
Matrix: Water
Analysis Batch: 355443

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 F C - Fluoride (Continued)

Lab Sample ID: MB 400-355495/3
Matrix: Water
Analysis Batch: 355495

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			05/31/17 14:35	1

Lab Sample ID: LCS 400-355495/4
Matrix: Water
Analysis Batch: 355495

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	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-137995-5 MS
Matrix: Water
Analysis Batch: 355495

Client Sample ID: MW-308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.090	I	1.00	1.04		mg/L		95	75 - 125

Lab Sample ID: 400-137995-5 MSD
Matrix: Water
Analysis Batch: 355495

Client Sample ID: MW-308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.090	I	1.00	1.04		mg/L		95	75 - 125	0	4

Lab Sample ID: 400-138007-H-5 DU
Matrix: Water
Analysis Batch: 355495

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.10		0.100		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-354060/6
Matrix: Water
Analysis Batch: 354060

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			05/18/17 11:23	1

Lab Sample ID: LCS 400-354060/7
Matrix: Water
Analysis Batch: 354060

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	14.1		mg/L		94	90 - 110

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-354060/3
Matrix: Water
Analysis Batch: 354060

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	4.16	I	mg/L		83	50 - 150		

Lab Sample ID: 400-137960-D-3 MS
Matrix: Water
Analysis Batch: 354060

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	970		400	967	J3	mg/L		-1	77 - 128		

Lab Sample ID: 400-137960-D-3 MSD
Matrix: Water
Analysis Batch: 354060

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	970		400	950	J3	mg/L		-5	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: Brett Sarles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 2	SSOW#:			

400-137995 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)	Analysis Requested: 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-300	5/16/17	1208	G	Water			X	X	X	X		
MW-303	5/15/17	1443	G	Water								
MW-304	5/16/17	1018	G	Water								
MW-305	5/16/17	1103	G	Water								
MW-308	5/16/17	0918	G	Water								
Dup-01	5/15/17	1343	G	W								
EB-01	5/16/17	1215	G	W								
FB-01	5/16/17	1050	G	W			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
1		5/16/17 1438	TAL		5/16/17 1438	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 1.7+0.2

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-137995-1
SDG Number: Landfill 2

Login Number: 137995
List Number: 1
Creator: Perez, Trina M

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	1.7°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-137995-1
SDG: Landfill 2

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-137995-2
TestAmerica Sample Delivery Group: Landfill 2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/16/2017 9:50:15 AM

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
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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 18
Chain of Custody 20
Receipt Checklists 21
Certification Summary 22

Job ID: 400-137995-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-137995-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-309827. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
MW-300 (400-137995-1), MW-303 (400-137995-2), MW-304 (400-137995-3), MW-305 (400-137995-4), MW-308 (400-137995-5), DUP-01 (400-137995-6), EB-01 (400-137995-7) and FB-01 (400-137995-8)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-309817. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.
MW-300 (400-137995-1), MW-303 (400-137995-2), MW-304 (400-137995-3), MW-305 (400-137995-4), MW-308 (400-137995-5), DUP-01 (400-137995-6), EB-01 (400-137995-7) and FB-01 (400-137995-8)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137995-1	MW-300	Water	05/16/17 12:08	05/16/17 14:38
400-137995-2	MW-303	Water	05/15/17 14:43	05/16/17 14:38
400-137995-3	MW-304	Water	05/16/17 10:18	05/16/17 14:38
400-137995-4	MW-305	Water	05/16/17 11:03	05/16/17 14:38
400-137995-5	MW-308	Water	05/16/17 09:18	05/16/17 14:38
400-137995-6	DUP-01	Water	05/15/17 13:43	05/16/17 14:38
400-137995-7	EB-01	Water	05/16/17 12:15	05/16/17 14:38
400-137995-8	FB-01	Water	05/16/17 10:50	05/16/17 14:38

Client Sample ID: MW-300

Date Collected: 05/16/17 12:08
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-1

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	0.433		0.118	0.125	1.00	0.0998	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.41		0.478	0.627	1.00	0.366	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*89.0*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	4.84		0.493	0.639	5.00	0.366	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-303

Date Collected: 05/15/17 14:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-2

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	0.857		0.154	0.172	1.00	0.101	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.92		0.459	0.644	1.00	0.281	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	5.77		0.484	0.667	5.00	0.281	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-304

Date Collected: 05/16/17 10:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-3

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	1.51		0.199	0.241	1.00	0.0814	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.38		0.355	0.417	1.00	0.323	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*90.8*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	0.481	5.00	0.323	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-305

Date Collected: 05/16/17 11:03
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-4

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	0.306		0.0961	0.0999	1.00	0.0829	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.951		0.265	0.279	1.00	0.332	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*91.2*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	1.26		0.282	0.297	5.00	0.332	pCi/L		06/14/17 11:06	1

Client Sample ID: MW-308

Date Collected: 05/16/17 09:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-5

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	0.442		0.114	0.121	1.00	0.0854	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*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		0.271	0.287	1.00	0.319	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*91.6*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	1.47		0.294	0.311	5.00	0.319	pCi/L		06/14/17 11:06	1

Client Sample ID: DUP-01

Date Collected: 05/15/17 13:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-6

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	1.09		0.166	0.192	1.00	0.0825	pCi/L	05/22/17 12:49	06/13/17 05:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:44*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.33		0.498	0.699	1.00	0.326	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*87.9*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	6.42		0.525	0.725	5.00	0.326	pCi/L		06/14/17 11:06	1

Client Sample ID: EB-01

Date Collected: 05/16/17 12:15
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-7

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	-0.00369	U	0.0366	0.0366	1.00	0.0807	pCi/L	05/22/17 12:49	06/13/17 05:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0994	U	0.188	0.188	1.00	0.353	pCi/L	05/22/17 14:10	06/02/17 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*1*
Y Carrier	*90.1*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:01*	*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	-0.103	U	0.192	0.192	5.00	0.353	pCi/L		06/14/17 11:06	1

Client Sample ID: FB-01

Date Collected: 05/16/17 10:50
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-8

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	-0.0211	U	0.0418	0.0419	1.00	0.0971	pCi/L	05/22/17 12:49	06/13/17 05:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:45*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.314	U	0.279	0.280	1.00	0.450	pCi/L	05/22/17 14:10	06/02/17 15:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:04*	*1*
Y Carrier	*85.2*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:04*	*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	0.293	U	0.282	0.283	5.00	0.450	pCi/L		06/14/17 11:06	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 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 Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 2

Client Sample ID: MW-300
Date Collected: 05/16/17 12:08
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: MW-303
Date Collected: 05/15/17 14:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: MW-304
Date Collected: 05/16/17 10:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: MW-305
Date Collected: 05/16/17 11:03
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 2

Client Sample ID: MW-308
Date Collected: 05/16/17 09:18
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: DUP-01
Date Collected: 05/15/17 13:43
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:44	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: EB-01
Date Collected: 05/16/17 12:15
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311619	06/02/17 15:01	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Client Sample ID: FB-01
Date Collected: 05/16/17 10:50
Date Received: 05/16/17 14:38

Lab Sample ID: 400-137995-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309817	05/22/17 12:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313171	06/13/17 05:45	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309827	05/22/17 14:10	LDE	TAL SL
Total/NA	Analysis	9320		1	311728	06/02/17 15:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313373	06/14/17 11:06	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 309817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	PrecSep-21	
400-137995-2	MW-303	Total/NA	Water	PrecSep-21	
400-137995-3	MW-304	Total/NA	Water	PrecSep-21	
400-137995-4	MW-305	Total/NA	Water	PrecSep-21	
400-137995-5	MW-308	Total/NA	Water	PrecSep-21	
400-137995-6	DUP-01	Total/NA	Water	PrecSep-21	
400-137995-7	EB-01	Total/NA	Water	PrecSep-21	
400-137995-8	FB-01	Total/NA	Water	PrecSep-21	
MB 160-309817/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-309817/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-309817/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 309827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137995-1	MW-300	Total/NA	Water	PrecSep_0	
400-137995-2	MW-303	Total/NA	Water	PrecSep_0	
400-137995-3	MW-304	Total/NA	Water	PrecSep_0	
400-137995-4	MW-305	Total/NA	Water	PrecSep_0	
400-137995-5	MW-308	Total/NA	Water	PrecSep_0	
400-137995-6	DUP-01	Total/NA	Water	PrecSep_0	
400-137995-7	EB-01	Total/NA	Water	PrecSep_0	
400-137995-8	FB-01	Total/NA	Water	PrecSep_0	
MB 160-309827/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-309827/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-309827/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-309817/1-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309817

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02237	U	0.0563	0.0564	1.00	0.103	pCi/L	05/22/17 12:49	06/13/17 05:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*05/22/17 12:49*	*06/13/17 05:43*	*1*

Lab Sample ID: LCS 160-309817/2-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309817

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.64		1.09	1.00	0.0879	pCi/L	94	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*40 - 110*

Lab Sample ID: LCSD 160-309817/3-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309817

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.920		1.03	1.00	0.105	pCi/L	87	68 - 137	0.34	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-309827/1-A
Matrix: Water
Analysis Batch: 311619

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309827

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.04271	U	0.223	0.223	1.00	0.390	pCi/L	05/22/17 14:10	06/02/17 15:00	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:00*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/22/17 14:10*	*06/02/17 15:00*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-309827/2-A
Matrix: Water
Analysis Batch: 311619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309827

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.4	13.39		1.45	1.00	0.410	pCi/L	100	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*40 - 110*
Y Carrier	*90.5*		*40 - 110*

Lab Sample ID: LCSD 160-309827/3-A
Matrix: Water
Analysis Batch: 311619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309827

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.4	12.56		1.37	1.00	0.386	pCi/L	94	56 - 140	0.30	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*
Y Carrier	*89.0*		*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 Sarles	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: 1-1
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Landfill 2	SSOW#:			

400-137995 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)	Analysis Requested: 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-300	5/16/17	1208	G	Water			X	X	X	X		
MW-303	5/15/17	1443	G	Water								
MW-304	5/16/17	1018	G	Water								
MW-305	5/16/17	1103	G	Water								
MW-308	5/16/17	0918	G	Water								
Dup-01	5/15/17	1343	G	W								
EB-01	5/16/17	1215	G	W								
FB-01	5/16/17	1050	G	W			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
1		5/16/17 1438	TAL		5/16/17 1438	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 1.7+0.2

6/16/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-137995-2
SDG Number: Landfill 2

Login Number: 137995
List Number: 1
Creator: Perez, Trina M

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	1.7°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 2

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-137995-2
SDG: Landfill 2

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-138061-1
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/8/2017 6:40:33 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 21
Chronicle 22
QC Association 27
QC Sample Results 32
Chain of Custody 39
Receipt Checklists 40
Certification Summary 41

Job ID: 400-138061-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-138061-1

Metals

Method(s) 6020: The serial dilution performed for the following sample associated with batch 354912 was outside control limits for Boron and Calcium: (400-138065-B-4-A SD).

Method(s) 6020: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 354669 and analytical batch 354912 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Boron and Calcium in the MS/MSD was above the instrument calibration range. The data have been reported.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 354669 and analytical batch 354912 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 post digestion spike % recovery for Calcium associated with batch 354912 was outside of control limits due to high concentration of analytes in the spiked sample.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-138061-1), MW-201 (400-138061-2), MW-203 (400-138061-4), MW-204 (400-138061-5), MW-206 (400-138061-7), DUP-02 (400-138061-8) and DUP-03 (400-138061-11). Elevated reporting limits (RLs) are provided.

General Chemistry

Method(s) SM 4500 F C: The sample duplicate RPD for the following sample associated with batch 355501 was outside control limits. Duplicate RPD exceeds limit and one or both sample results are less than 4 times RL. The data are considered valid because the absolute difference is less than RL.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-201 (400-138061-2) and MW-204 (400-138061-5). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354648 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-201 (400-138061-2), MW-203 (400-138061-4), MW-204 (400-138061-5), MW-206 (400-138061-7) and DUP-03 (400-138061-11). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354607 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354650 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-138061-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0018		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.061		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0013	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0011	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.010		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00025	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	21		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	500		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.0019		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	3100		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1000		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	280		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-138061-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00090	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0044		0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0021	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0042	I	0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0094		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00029	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Calcium - DL	160		1.3	0.63	mg/L	25		6020	Total Recoverable
Boron - DL2	10		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.00016	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1100		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	310		40	12	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.77		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	270		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.9				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-138061-3

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-138061-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	4.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00091	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Boron - RA	0.11		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	10		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.4				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-138061-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0029		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00084	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Boron - DL	0.94		0.10	0.042	mg/L	10		6020	Total Recoverable
Mercury	0.00012	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	15		2.0	0.60	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
Sulfate	62	I	220	62	mg/L	44		SM 4500 SO4 E	Total/NA
Field pH	4.37				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-138061-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0035		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.026		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00062	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	86		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.018		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0023		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0038		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00035	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	6.7		0.50	0.21	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	750		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-138061-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	73		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.24		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	390		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.08				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-138061-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - RA	0.074		0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	14		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.51				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-138061-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0052		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.11		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0024	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0035		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0081		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.013		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00071		0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	67		5.0	2.1	mg/L	500		6020	Total Recoverable
Calcium - DL	1500		25	13	mg/L	500		6020	Total Recoverable
Mercury	0.00034		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	8300		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	3500		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	590		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.35				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-138061-8

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	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-02 (Continued) — Lab Sample ID: 400-138061-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0013	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0012	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.010		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00024	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	22		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	490		10	5.0	mg/L	200		6020	Total Recoverable
Mercury	0.0019		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	3400		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	1100		200	60	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	300		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-138061-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.23	I	0.25	0.13	mg/L	5		6020	Total Recoverable

Client Sample ID: EB-02 — Lab Sample ID: 400-138061-10

No Detections.

Client Sample ID: DUP-03 — Lab Sample ID: 400-138061-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	19		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0029		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.00075	I	0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.000085	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	0.96		0.10	0.042	mg/L	10		6020	Total Recoverable
Mercury	0.00011	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	140		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	15		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	59		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

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

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 Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-138061-1	MW-200	Water	05/16/17 13:35	05/17/17 13:39
400-138061-2	MW-201	Water	05/17/17 11:17	05/17/17 13:39
400-138061-3	MW-202	Water	05/17/17 12:28	05/17/17 13:39
400-138061-4	MW-203	Water	05/17/17 09:49	05/17/17 13:39
400-138061-5	MW-204	Water	05/17/17 08:35	05/17/17 13:39
400-138061-6	MW-205	Water	05/17/17 07:47	05/17/17 13:39
400-138061-7	MW-206	Water	05/17/17 06:41	05/17/17 13:39
400-138061-8	DUP-02	Water	05/16/17 12:35	05/17/17 13:39
400-138061-9	FB-02	Water	05/17/17 10:35	05/17/17 13:39
400-138061-10	EB-02	Water	05/17/17 12:40	05/17/17 13:39
400-138061-11	DUP-03	Water	05/17/17 08:49	05/17/17 13:39

Client Sample ID: MW-200
Date Collected: 05/16/17 13:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-1
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		05/24/17 08:37	05/24/17 23:04	5
Arsenic	**0.0018**		0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:04	5
Barium	**0.061**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:04	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:04	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:04	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:04	5
Cobalt	**0.0013**	**I**	0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:04	5
Lead	**0.0011**	**I**	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:04	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:04	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:04	5
Selenium	**0.010**		0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:04	5
Thallium	**0.00025**	**I**	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:04	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**21**		2.0	0.84	mg/L		05/24/17 08:37	05/25/17 13:26	200
Calcium	**500**		10	5.0	mg/L		05/24/17 08:37	05/25/17 13:26	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0019**		0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 13:55	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3100**		25	17	mg/L			05/20/17 14:57	1
Chloride	**1000**		200	60	mg/L			05/23/17 10:12	100
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			05/31/17 15:44	1
Sulfate	**280**		50	14	mg/L			05/23/17 09:52	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.77**				SU			05/16/17 13:35	1

Client Sample ID: MW-201

Date Collected: 05/17/17 11:17
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-2

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		05/24/17 08:37	05/24/17 23:09	5
Arsenic	**0.00090**	**I**	0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:09	5
Barium	**0.036**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:09	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:09	5
Cadmium	**0.0044**		0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:09	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:09	5
Cobalt	**0.0021**	**I**	0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:09	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:09	5
Lithium	**0.0042**	**I**	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:09	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:09	5
Selenium	**0.0094**		0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:09	5
Thallium	**0.00029**	**I**	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:09	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**160**		1.3	0.63	mg/L		05/24/17 08:37	05/25/17 13:31	25

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL2

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**10**		1.0	0.42	mg/L		05/24/17 08:37	05/25/17 13:35	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00016**	**I**	0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 14:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		5.0	3.4	mg/L			05/20/17 14:57	1
Chloride	**310**		40	12	mg/L			05/23/17 10:41	20
Fluoride	**0.77**		0.10	0.032	mg/L			05/31/17 15:47	1
Sulfate	**270**		100	28	mg/L			05/23/17 10:34	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.9**				SU			05/17/17 11:17	1

Client Sample ID: MW-202
Date Collected: 05/17/17 12:28
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-3
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		05/24/17 08:37	05/24/17 23:13	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:13	5
Barium	**0.019**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:13	5
Calcium	**4.0**		0.25	0.13	mg/L		05/24/17 08:37	05/24/17 23:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:13	5
Cobalt	**0.00091**	**I**	0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:13	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:13	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:13	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:13	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:13	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.11**		0.050	0.021	mg/L		05/24/17 08:37	05/25/17 12:58	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		05/22/17 15:42	05/26/17 14:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			05/20/17 14:57	1
Chloride	**10**		2.0	0.60	mg/L			05/23/17 10:11	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 15:49	1
Sulfate	**11**		5.0	1.4	mg/L			05/23/17 09:52	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.4**				SU			05/17/17 12:28	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203
Date Collected: 05/17/17 09:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-4
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		05/24/17 08:37	05/24/17 23:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:18	5
Barium	**0.040**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:18	5
Calcium	**19**		0.25	0.13	mg/L		05/24/17 08:37	05/24/17 23:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:18	5
Cobalt	**0.0029**		0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:18	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:18	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:18	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:18	5
Selenium	**0.00084**	**I**	0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:18	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.94**		0.10	0.042	mg/L		05/24/17 08:37	05/25/17 13:59	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00012**	**I**	0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 14:10	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			05/20/17 14:57	1
Chloride	**15**		2.0	0.60	mg/L			05/23/17 10:11	1
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			05/31/17 16:26	1
Sulfate	**62**	**I**	220	62	mg/L			05/23/17 10:34	44

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.37**				SU			05/17/17 09:49	1

Client Sample ID: MW-204
Date Collected: 05/17/17 08:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-5
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		05/24/17 08:37	05/24/17 23:41	5
Arsenic	**0.0035**		0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:41	5
Barium	**0.026**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:41	5
Beryllium	**0.00062**	**I**	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:41	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:41	5
Calcium	**86**		0.25	0.13	mg/L		05/24/17 08:37	05/24/17 23:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:41	5
Cobalt	**0.018**		0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:41	5
Lead	**0.0023**		0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:41	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:41	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:41	5
Selenium	**0.0038**		0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:41	5
Thallium	**0.00035**	**I**	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:41	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**6.7**		0.50	0.21	mg/L		05/24/17 08:37	05/25/17 14:03	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		05/22/17 15:42	05/26/17 14:12	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**750**		5.0	3.4	mg/L			05/20/17 14:57	1
Chloride	**73**		10	3.0	mg/L			05/23/17 10:41	5
Fluoride	**0.24**		0.10	0.032	mg/L			05/31/17 16:30	1
Sulfate	**390**		100	28	mg/L			05/23/17 10:34	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.08**				SU			05/17/17 08:35	1

Client Sample ID: MW-205

Date Collected: 05/17/17 07:47
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-6

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		05/24/17 08:37	05/24/17 23:45	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:45	5
Barium	**0.012**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:45	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:45	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:45	5
Calcium	**16**		0.25	0.13	mg/L		05/24/17 08:37	05/24/17 23:45	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:45	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:45	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:45	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:45	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:45	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:45	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:45	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.074**		0.050	0.021	mg/L		05/24/17 08:37	05/25/17 13:03	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		05/22/17 15:42	05/26/17 14:14	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**46**		5.0	3.4	mg/L			05/20/17 14:57	1
Chloride	**4.4**		2.0	0.60	mg/L			05/23/17 10:11	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 17:32	1
Sulfate	**14**		5.0	1.4	mg/L			05/23/17 09:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.51**				SU			05/17/17 07:47	1

Client Sample ID: MW-206

Date Collected: 05/17/17 06:41
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-7

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		05/24/17 08:37	05/24/17 23:50	5
Arsenic	**0.0052**		0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:50	5
Barium	**0.11**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:50	5
Cadmium	**0.0024**	**I**	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:50	5
Cobalt	**0.0035**		0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:50	5
Lead	**0.0081**		0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:50	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:50	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:50	5
Selenium	**0.013**		0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:50	5
Thallium	**0.00071**		0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:50	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**67**		5.0	2.1	mg/L		05/24/17 08:37	05/25/17 14:08	500
Calcium	**1500**		25	13	mg/L		05/24/17 08:37	05/25/17 14:08	500

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00034**		0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 14:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8300**		25	17	mg/L			05/20/17 14:57	1
Chloride	**3500**		200	60	mg/L			05/23/17 12:13	100
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			05/31/17 17:39	1
Sulfate	**590**		100	28	mg/L			05/23/17 13:37	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.35**				SU			05/17/17 06:41	1

Client Sample ID: DUP-02

Date Collected: 05/16/17 12:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-8

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		05/24/17 08:37	05/24/17 23:54	5
Arsenic	**0.0015**		0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:54	5
Barium	**0.062**		0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:54	5
Cobalt	**0.0013**	**I**	0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:54	5
Lead	**0.0012**	**I**	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:54	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:54	5
Selenium	**0.010**		0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:54	5
Thallium	**0.00024**	**I**	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:54	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**22**		2.0	0.84	mg/L		05/24/17 08:37	05/25/17 14:12	200
Calcium	**490**		10	5.0	mg/L		05/24/17 08:37	05/25/17 14:12	200

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0019**		0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 14:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3400**		25	17	mg/L			05/20/17 14:57	1
Chloride	**1100**		200	60	mg/L			05/23/17 12:13	100
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			05/31/17 17:43	1
Sulfate	**300**		50	14	mg/L			05/23/17 12:20	10

Client Sample ID: FB-02
Date Collected: 05/17/17 10:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-9
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		05/24/17 08:37	05/24/17 23:59	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/24/17 08:37	05/24/17 23:59	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/24/17 08:37	05/24/17 23:59	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:59	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/24/17 23:59	5
Calcium	0.23	I	0.25	0.13	mg/L		05/24/17 08:37	05/24/17 23:59	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/24/17 23:59	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/24/17 08:37	05/24/17 23:59	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/24/17 23:59	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/24/17 23:59	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/24/17 23:59	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/24/17 08:37	05/24/17 23:59	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/24/17 08:37	05/24/17 23:59	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		05/24/17 08:37	05/25/17 13:07	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		05/22/17 15:42	05/26/17 14:19	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			05/20/17 14:57	1
Chloride	0.60	U	2.0	0.60	mg/L			05/23/17 12:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 17:45	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/23/17 12:20	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Client Sample ID: EB-02
Date Collected: 05/17/17 12:40
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-10
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		05/24/17 08:37	05/25/17 00:03	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/24/17 08:37	05/25/17 00:03	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/24/17 08:37	05/25/17 00:03	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/25/17 00:03	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/25/17 00:03	5
Calcium	0.13	U	0.25	0.13	mg/L		05/24/17 08:37	05/25/17 00:03	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/25/17 00:03	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/24/17 08:37	05/25/17 00:03	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/25/17 00:03	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/25/17 00:03	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/25/17 00:03	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/24/17 08:37	05/25/17 00:03	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/24/17 08:37	05/25/17 00:03	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		05/24/17 08:37	05/25/17 13:12	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		05/22/17 15:42	05/26/17 14:21	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			05/20/17 14:57	1
Chloride	0.60	U	2.0	0.60	mg/L			05/23/17 12:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			05/31/17 17:48	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/23/17 12:20	1

Client Sample ID: DUP-03

Date Collected: 05/17/17 08:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-11

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		05/24/17 08:37	05/25/17 00:08	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/24/17 08:37	05/25/17 00:08	5
Barium	**0.040**		0.0025	0.00049	mg/L		05/24/17 08:37	05/25/17 00:08	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/25/17 00:08	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/24/17 08:37	05/25/17 00:08	5
Calcium	**19**		0.25	0.13	mg/L		05/24/17 08:37	05/25/17 00:08	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/24/17 08:37	05/25/17 00:08	5
Cobalt	**0.0029**		0.0025	0.00040	mg/L		05/24/17 08:37	05/25/17 00:08	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/24/17 08:37	05/25/17 00:08	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/24/17 08:37	05/25/17 00:08	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/24/17 08:37	05/25/17 00:08	5
Selenium	**0.00075**	**I**	0.0013	0.00024	mg/L		05/24/17 08:37	05/25/17 00:08	5
Thallium	**0.000085**	**I**	0.00050	0.000085	mg/L		05/24/17 08:37	05/25/17 00:08	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.96**		0.10	0.042	mg/L		05/24/17 08:37	05/25/17 14:17	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00011**	**I**	0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 14:22	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**140**		5.0	3.4	mg/L			05/20/17 14:57	1
Chloride	**15**		2.0	0.60	mg/L			05/23/17 12:10	1
Fluoride	**0.050**	**I**	0.10	0.032	mg/L			05/31/17 17:52	1
Sulfate	**59**		50	14	mg/L			05/23/17 13:37	10

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.

General Chemistry

Qualifier	Qualifier Description
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.
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)

Client Sample ID: MW-200

Date Collected: 05/16/17 13:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:04	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	200	355083	05/25/17 13:26	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 13:55	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	354604	05/23/17 10:12	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 15:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354607	05/23/17 09:52	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/16/17 13:35	BWS	TAL PEN

Client Sample ID: MW-201

Date Collected: 05/17/17 11:17
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:09	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	25	355083	05/25/17 13:31	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL2		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL2	100	355083	05/25/17 13:35	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	354604	05/23/17 10:41	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 15:47	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	354607	05/23/17 10:34	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/17/17 11:17	BWS	TAL PEN

Client Sample ID: MW-202

Date Collected: 05/17/17 12:28
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:13	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	RA	5	355083	05/25/17 12:58	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:09	JAP	TAL PEN

Client Sample ID: MW-202

Date Collected: 05/17/17 12:28
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354604	05/23/17 10:11	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 15:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354607	05/23/17 09:52	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/17/17 12:28	BWS	TAL PEN

Client Sample ID: MW-203

Date Collected: 05/17/17 09:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:18	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	10	355083	05/25/17 13:59	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354604	05/23/17 10:11	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 16:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		44	354607	05/23/17 10:34	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/17/17 09:49	BWS	TAL PEN

Client Sample ID: MW-204

Date Collected: 05/17/17 08:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:41	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	50	355083	05/25/17 14:03	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:12	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	354604	05/23/17 10:41	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355495	05/31/17 16:30	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	354607	05/23/17 10:34	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/17/17 08:35	BWS	TAL PEN

Client Sample ID: MW-205

Date Collected: 05/17/17 07:47
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:45	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	RA	5	355083	05/25/17 13:03	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:14	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354604	05/23/17 10:11	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355501	05/31/17 17:32	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354607	05/23/17 09:53	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/17/17 07:47	BWS	TAL PEN

Client Sample ID: MW-206

Date Collected: 05/17/17 06:41
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:50	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	500	355083	05/25/17 14:08	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	354648	05/23/17 12:13	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355501	05/31/17 17:39	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	354650	05/23/17 13:37	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/17/17 06:41	BWS	TAL PEN

Client Sample ID: DUP-02

Date Collected: 05/16/17 12:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:54	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	200	355083	05/25/17 14:12	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	354648	05/23/17 12:13	BJB	TAL PEN

Client Sample ID: DUP-02
Date Collected: 05/16/17 12:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-8
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	355501	05/31/17 17:43	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354650	05/23/17 12:20	BJB	TAL PEN

Client Sample ID: FB-02
Date Collected: 05/17/17 10:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/24/17 23:59	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	RA	5	355083	05/25/17 13:07	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354648	05/23/17 12:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355501	05/31/17 17:45	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354650	05/23/17 12:20	BJB	TAL PEN

Client Sample ID: EB-02
Date Collected: 05/17/17 12:40
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/25/17 00:03	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	RA	5	355083	05/25/17 13:12	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354648	05/23/17 12:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355501	05/31/17 17:48	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354650	05/23/17 12:20	BJB	TAL PEN

Client Sample ID: DUP-03
Date Collected: 05/17/17 08:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020		5	354912	05/25/17 00:08	DRE	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-03

Date Collected: 05/17/17 08:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		354669	05/24/17 08:37	JAP	TAL PEN
Total Recoverable	Analysis	6020	DL	10	355083	05/25/17 14:17	DRE	TAL PEN
Total/NA	Prep	7470A			354481	05/22/17 15:42	JAP	TAL PEN
Total/NA	Analysis	7470A		1	355126	05/26/17 14:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354286	05/20/17 14:57	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354648	05/23/17 12:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355501	05/31/17 17:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354650	05/23/17 13:37	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 354481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	7470A	
400-138061-2	MW-201	Total/NA	Water	7470A	
400-138061-3	MW-202	Total/NA	Water	7470A	
400-138061-4	MW-203	Total/NA	Water	7470A	
400-138061-5	MW-204	Total/NA	Water	7470A	
400-138061-6	MW-205	Total/NA	Water	7470A	
400-138061-7	MW-206	Total/NA	Water	7470A	
400-138061-8	DUP-02	Total/NA	Water	7470A	
400-138061-9	FB-02	Total/NA	Water	7470A	
400-138061-10	EB-02	Total/NA	Water	7470A	
400-138061-11	DUP-03	Total/NA	Water	7470A	
MB 400-354481/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-354481/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-138147-I-5-C MS	Matrix Spike	Total/NA	Water	7470A	
400-138147-I-5-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 354669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-138061-1	MW-200	Total Recoverable	Water	3005A	
400-138061-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-138061-2 - DL2	MW-201	Total Recoverable	Water	3005A	
400-138061-2	MW-201	Total Recoverable	Water	3005A	
400-138061-3 - RA	MW-202	Total Recoverable	Water	3005A	
400-138061-3	MW-202	Total Recoverable	Water	3005A	
400-138061-4 - DL	MW-203	Total Recoverable	Water	3005A	
400-138061-4	MW-203	Total Recoverable	Water	3005A	
400-138061-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-138061-5	MW-204	Total Recoverable	Water	3005A	
400-138061-6	MW-205	Total Recoverable	Water	3005A	
400-138061-6 - RA	MW-205	Total Recoverable	Water	3005A	
400-138061-7	MW-206	Total Recoverable	Water	3005A	
400-138061-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-138061-8 - DL	DUP-02	Total Recoverable	Water	3005A	
400-138061-8	DUP-02	Total Recoverable	Water	3005A	
400-138061-9 - RA	FB-02	Total Recoverable	Water	3005A	
400-138061-9	FB-02	Total Recoverable	Water	3005A	
400-138061-10 - RA	EB-02	Total Recoverable	Water	3005A	
400-138061-10	EB-02	Total Recoverable	Water	3005A	
400-138061-11 - DL	DUP-03	Total Recoverable	Water	3005A	
400-138061-11	DUP-03	Total Recoverable	Water	3005A	
MB 400-354669/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-354669/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-138065-B-4-B MS ^5	Matrix Spike	Dissolved	Water	3005A	
400-138065-B-4-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 354912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total Recoverable	Water	6020	354669
400-138061-2	MW-201	Total Recoverable	Water	6020	354669
400-138061-3	MW-202	Total Recoverable	Water	6020	354669

Metals (Continued)

Analysis Batch: 354912 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-4	MW-203	Total Recoverable	Water	6020	354669
400-138061-5	MW-204	Total Recoverable	Water	6020	354669
400-138061-6	MW-205	Total Recoverable	Water	6020	354669
400-138061-7	MW-206	Total Recoverable	Water	6020	354669
400-138061-8	DUP-02	Total Recoverable	Water	6020	354669
400-138061-9	FB-02	Total Recoverable	Water	6020	354669
400-138061-10	EB-02	Total Recoverable	Water	6020	354669
400-138061-11	DUP-03	Total Recoverable	Water	6020	354669
MB 400-354669/1-A ^5	Method Blank	Total Recoverable	Water	6020	354669
LCS 400-354669/2-A	Lab Control Sample	Total Recoverable	Water	6020	354669
400-138065-B-4-B MS ^5	Matrix Spike	Dissolved	Water	6020	354669
400-138065-B-4-C MSD ^5	Matrix Spike Duplicate	Dissolved	Water	6020	354669

Analysis Batch: 355083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1 - DL	MW-200	Total Recoverable	Water	6020	354669
400-138061-2 - DL	MW-201	Total Recoverable	Water	6020	354669
400-138061-2 - DL2	MW-201	Total Recoverable	Water	6020	354669
400-138061-3 - RA	MW-202	Total Recoverable	Water	6020	354669
400-138061-4 - DL	MW-203	Total Recoverable	Water	6020	354669
400-138061-5 - DL	MW-204	Total Recoverable	Water	6020	354669
400-138061-6 - RA	MW-205	Total Recoverable	Water	6020	354669
400-138061-7 - DL	MW-206	Total Recoverable	Water	6020	354669
400-138061-8 - DL	DUP-02	Total Recoverable	Water	6020	354669
400-138061-9 - RA	FB-02	Total Recoverable	Water	6020	354669
400-138061-10 - RA	EB-02	Total Recoverable	Water	6020	354669
400-138061-11 - DL	DUP-03	Total Recoverable	Water	6020	354669

Analysis Batch: 355126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	7470A	354481
400-138061-2	MW-201	Total/NA	Water	7470A	354481
400-138061-3	MW-202	Total/NA	Water	7470A	354481
400-138061-4	MW-203	Total/NA	Water	7470A	354481
400-138061-5	MW-204	Total/NA	Water	7470A	354481
400-138061-6	MW-205	Total/NA	Water	7470A	354481
400-138061-7	MW-206	Total/NA	Water	7470A	354481
400-138061-8	DUP-02	Total/NA	Water	7470A	354481
400-138061-9	FB-02	Total/NA	Water	7470A	354481
400-138061-10	EB-02	Total/NA	Water	7470A	354481
400-138061-11	DUP-03	Total/NA	Water	7470A	354481
MB 400-354481/14-A	Method Blank	Total/NA	Water	7470A	354481
LCS 400-354481/15-A	Lab Control Sample	Total/NA	Water	7470A	354481
400-138147-I-5-C MS	Matrix Spike	Total/NA	Water	7470A	354481
400-138147-I-5-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	354481

General Chemistry

Analysis Batch: 354286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	SM 2540C	
400-138061-2	MW-201	Total/NA	Water	SM 2540C	
400-138061-3	MW-202	Total/NA	Water	SM 2540C	
400-138061-4	MW-203	Total/NA	Water	SM 2540C	
400-138061-5	MW-204	Total/NA	Water	SM 2540C	
400-138061-6	MW-205	Total/NA	Water	SM 2540C	
400-138061-7	MW-206	Total/NA	Water	SM 2540C	
400-138061-8	DUP-02	Total/NA	Water	SM 2540C	
400-138061-9	FB-02	Total/NA	Water	SM 2540C	
400-138061-10	EB-02	Total/NA	Water	SM 2540C	
400-138061-11	DUP-03	Total/NA	Water	SM 2540C	
MB 400-354286/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-354286/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-138061-5 DU	MW-204	Total/NA	Water	SM 2540C	

Analysis Batch: 354604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-138061-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-138061-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-138061-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-138061-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-138061-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
MB 400-354604/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-354604/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-354604/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138007-J-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-138007-J-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 354607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-138061-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-138061-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-138061-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-138061-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-138061-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
MB 400-354607/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-354607/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-354607/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-138058-D-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-138058-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 354648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-138061-8	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-138061-9	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-138061-10	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-138061-11	DUP-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-354648/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 354648 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-354648/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-354648/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138128-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-138128-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 354650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-138061-8	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-138061-9	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-138061-10	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-138061-11	DUP-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-354650/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-354650/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-354650/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-138128-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-138128-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 355495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	SM 4500 F C	
400-138061-2	MW-201	Total/NA	Water	SM 4500 F C	
400-138061-3	MW-202	Total/NA	Water	SM 4500 F C	
400-138061-4	MW-203	Total/NA	Water	SM 4500 F C	
400-138061-5	MW-204	Total/NA	Water	SM 4500 F C	
MB 400-355495/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355495/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137995-B-5 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-137995-B-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-138007-H-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 355501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-6	MW-205	Total/NA	Water	SM 4500 F C	
400-138061-7	MW-206	Total/NA	Water	SM 4500 F C	
400-138061-8	DUP-02	Total/NA	Water	SM 4500 F C	
400-138061-9	FB-02	Total/NA	Water	SM 4500 F C	
400-138061-10	EB-02	Total/NA	Water	SM 4500 F C	
400-138061-11	DUP-03	Total/NA	Water	SM 4500 F C	
MB 400-355501/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355501/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-138061-6 MS	MW-205	Total/NA	Water	SM 4500 F C	
400-138061-6 MSD	MW-205	Total/NA	Water	SM 4500 F C	
400-138128-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 356265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 356265 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-2	MW-201	Total/NA	Water	Field Sampling	
400-138061-3	MW-202	Total/NA	Water	Field Sampling	
400-138061-4	MW-203	Total/NA	Water	Field Sampling	
400-138061-5	MW-204	Total/NA	Water	Field Sampling	
400-138061-6	MW-205	Total/NA	Water	Field Sampling	
400-138061-7	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-354669/1-A ^5
Matrix: Water
Analysis Batch: 354912

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 354669

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/23/17 16:42	05/24/17 21:51	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/23/17 16:42	05/24/17 21:51	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/23/17 16:42	05/24/17 21:51	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/23/17 16:42	05/24/17 21:51	5
Boron	0.021	U	0.050	0.021	mg/L		05/23/17 16:42	05/24/17 21:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/23/17 16:42	05/24/17 21:51	5
Calcium	0.13	U	0.25	0.13	mg/L		05/23/17 16:42	05/24/17 21:51	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/23/17 16:42	05/24/17 21:51	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/23/17 16:42	05/24/17 21:51	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/23/17 16:42	05/24/17 21:51	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/23/17 16:42	05/24/17 21:51	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/23/17 16:42	05/24/17 21:51	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/23/17 16:42	05/24/17 21:51	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/23/17 16:42	05/24/17 21:51	5

Lab Sample ID: LCS 400-354669/2-A
Matrix: Water
Analysis Batch: 354912

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 354669

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0554		mg/L		111	80 - 120
Arsenic	0.0500	0.0525		mg/L		105	80 - 120
Barium	0.0500	0.0537		mg/L		107	80 - 120
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Boron	0.100	0.104		mg/L		104	80 - 120
Cadmium	0.0500	0.0538		mg/L		108	80 - 120
Calcium	5.00	5.10		mg/L		102	80 - 120
Chromium	0.0500	0.0502		mg/L		100	80 - 120
Cobalt	0.0500	0.0510		mg/L		102	80 - 120
Lead	0.0500	0.0520		mg/L		104	80 - 120
Lithium	0.0500	0.0523		mg/L		105	80 - 120
Molybdenum	0.100	0.105		mg/L		105	80 - 120
Selenium	0.0500	0.0530		mg/L		106	80 - 120
Thallium	0.0100	0.0103		mg/L		103	80 - 120

Lab Sample ID: 400-138065-B-4-B MS ^5
Matrix: Water
Analysis Batch: 354912

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 354669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0591		mg/L		118	75 - 125
Arsenic	0.29		0.0500	0.325	J3	mg/L		66	75 - 125
Barium	0.044		0.0500	0.0951		mg/L		101	75 - 125
Beryllium	0.00034	U	0.0500	0.0575		mg/L		115	75 - 125
Boron	2.0		0.100	2.04	L	mg/L		82	75 - 125
Cadmium	0.00034	U	0.0500	0.0505		mg/L		101	75 - 125
Calcium	140	L	5.00	132	L J3	mg/L		-98	75 - 125
Chromium	0.0011	U	0.0500	0.0497		mg/L		99	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-138065-B-4-B MS ^5
Matrix: Water
Analysis Batch: 354912

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 354669

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0049		0.0500	0.0533		mg/L		97	75 - 125
Lead	0.00035	U	0.0500	0.0522		mg/L		104	75 - 125
Lithium	0.035		0.0500	0.0771		mg/L		84	75 - 125
Molybdenum	0.020		0.100	0.127		mg/L		108	75 - 125
Selenium	0.00024	U	0.0500	0.0587		mg/L		117	75 - 125
Thallium	0.000085	U	0.0100	0.00970		mg/L		97	75 - 125

Lab Sample ID: 400-138065-B-4-C MSD ^5
Matrix: Water
Analysis Batch: 354912

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 354669

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	0.0576		mg/L		115	75 - 125	3	20
Arsenic	0.29		0.0500	0.325	J3	mg/L		66	75 - 125	0	20
Barium	0.044		0.0500	0.0958		mg/L		103	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0579		mg/L		116	75 - 125	1	20
Boron	2.0		0.100	2.05	L	mg/L		94	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0506		mg/L		101	75 - 125	0	20
Calcium	140	L	5.00	132	L J3	mg/L		-102	75 - 125	0	20
Chromium	0.0011	U	0.0500	0.0504		mg/L		101	75 - 125	1	20
Cobalt	0.0049		0.0500	0.0536		mg/L		98	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0518		mg/L		104	75 - 125	1	20
Lithium	0.035		0.0500	0.0762		mg/L		82	75 - 125	1	20
Molybdenum	0.020		0.100	0.122		mg/L		102	75 - 125	4	20
Selenium	0.00024	U	0.0500	0.0538		mg/L		108	75 - 125	9	20
Thallium	0.000085	U	0.0100	0.00958		mg/L		96	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-354481/14-A
Matrix: Water
Analysis Batch: 355126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354481

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/22/17 15:42	05/26/17 13:43	1

Lab Sample ID: LCS 400-354481/15-A
Matrix: Water
Analysis Batch: 355126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000956		mg/L		95	80 - 120

Lab Sample ID: 400-138147-I-5-C MS
Matrix: Water
Analysis Batch: 355126

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 354481

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00165		mg/L		82	80 - 120

Lab Sample ID: 400-138147-I-5-D MSD
Matrix: Water
Analysis Batch: 355126

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 354481

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	0.00165		mg/L		82	80 - 120	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-354286/1
Matrix: Water
Analysis Batch: 354286

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			05/20/17 14:57	1

Lab Sample ID: LCS 400-354286/2
Matrix: Water
Analysis Batch: 354286

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: 400-138061-5 DU
Matrix: Water
Analysis Batch: 354286

Client Sample ID: MW-204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	750		746		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-354604/6
Matrix: Water
Analysis Batch: 354604

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/23/17 08:21	1

Lab Sample ID: LCS 400-354604/7
Matrix: Water
Analysis Batch: 354604

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 400-354604/3
Matrix: Water
Analysis Batch: 354604

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	1.23	I	mg/L		62	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-138007-J-4 MS
Matrix: Water
Analysis Batch: 354604

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	4.7		10.0	12.6		mg/L		79	73 - 120

Lab Sample ID: 400-138007-J-4 MSD
Matrix: Water
Analysis Batch: 354604

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	4.7		10.0	12.4		mg/L		77	73 - 120	1	8

Lab Sample ID: MB 400-354648/6
Matrix: Water
Analysis Batch: 354648

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/23/17 11:09	1

Lab Sample ID: LCS 400-354648/7
Matrix: Water
Analysis Batch: 354648

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	32.4		mg/L		108	90 - 110

Lab Sample ID: MRL 400-354648/3
Matrix: Water
Analysis Batch: 354648

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	1.88	I	mg/L		94	50 - 150

Lab Sample ID: 400-138128-A-11 MS
Matrix: Water
Analysis Batch: 354648

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	52		50.0	65.2	J3	mg/L		27	73 - 120

Lab Sample ID: 400-138128-A-11 MSD
Matrix: Water
Analysis Batch: 354648

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	52		50.0	64.4	J3	mg/L		26	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-355495/3
Matrix: Water
Analysis Batch: 355495

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			05/31/17 14:35	1

Lab Sample ID: LCS 400-355495/4
Matrix: Water
Analysis Batch: 355495

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	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-137995-B-5 MS
Matrix: Water
Analysis Batch: 355495

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	0.090	I	1.00	1.04		mg/L		95	75 - 125

Lab Sample ID: 400-137995-B-5 MSD
Matrix: Water
Analysis Batch: 355495

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	0.090	I	1.00	1.04		mg/L		95	75 - 125	0	4

Lab Sample ID: 400-138007-H-5 DU
Matrix: Water
Analysis Batch: 355495

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.10		0.100		mg/L		0	4

Lab Sample ID: MB 400-355501/3
Matrix: Water
Analysis Batch: 355501

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			05/31/17 17:24	1

Lab Sample ID: LCS 400-355501/4
Matrix: Water
Analysis Batch: 355501

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	3.72		mg/L		93	90 - 110

Lab Sample ID: 400-138061-6 MS
Matrix: Water
Analysis Batch: 355501

Client Sample ID: MW-205
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	0.900		mg/L		90	75 - 125

Lab Sample ID: 400-138061-6 MSD
Matrix: Water
Analysis Batch: 355501

Client Sample ID: MW-205
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	0.930		mg/L		93	75 - 125	3	4

Lab Sample ID: 400-138128-A-3 DU
Matrix: Water
Analysis Batch: 355501

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.14		0.150	J3	mg/L		7	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-354607/6
Matrix: Water
Analysis Batch: 354607

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			05/23/17 08:23	1

Lab Sample ID: LCS 400-354607/7
Matrix: Water
Analysis Batch: 354607

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 400-354607/3
Matrix: Water
Analysis Batch: 354607

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	4.93	I	mg/L		99	50 - 150

Lab Sample ID: 400-138058-D-2 MS
Matrix: Water
Analysis Batch: 354607

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	390		200	388	J3	mg/L		-3	77 - 128

Lab Sample ID: 400-138058-D-2 MSD
Matrix: Water
Analysis Batch: 354607

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	390		200	395	J3	mg/L		0.8	77 - 128	2	5

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MB 400-354650/6
Matrix: Water
Analysis Batch: 354650

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			05/23/17 11:11	1

Lab Sample ID: LCS 400-354650/7
Matrix: Water
Analysis Batch: 354650

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 400-354650/3
Matrix: Water
Analysis Batch: 354650

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	4.32	I	mg/L		86	50 - 150		

Lab Sample ID: 400-138128-A-11 MS
Matrix: Water
Analysis Batch: 354650

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		100	160	J3	mg/L		4	77 - 128		

Lab Sample ID: 400-138128-A-11 MSD
Matrix: Water
Analysis Batch: 354650

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		100	158	J3	mg/L		1	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 Sides	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: 1 - 1
Company: Gulf Power Company				Job #: 400-138061
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 Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	SSOW#:			

Analysis Requested

400-138061 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-200	5/16/17	1335	G	Water			X	X	X	X		
MW-201	5/17/17	1117	G	Water								
MW-202	5/17/17	1228	G	Water								
MW-203	5/17/17	0949	G	Water								
MW-204	5/17/17	0835	G	Water								
MW-205	5/17/17	0747	G	Water								
MW-206	5/17/17	0641	G	Water								
Dup-02	5/16/17	1235	G	W								
FB-02	5/17/17	1035	G	W								
EB-02	5/17/17	1240	G	W			X	X	X	X		
Dup-03	5/17/17	0849	G	W			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
	5/17/17 1339	RDH		5/17/17 1339	TA-PEN
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: 0.0, 0.0, 0.0 IR

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-138061-1
SDG Number: Gypsum Storage Area

Login Number: 138061
List Number: 1
Creator: Siddoway, Benjamin

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	0.0°C, 0.0°C, 0.0°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-138061-1
SDG: Gypsum Storage Area

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-138061-2
TestAmerica Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
6/19/2017 3:48:00 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-138061-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-138061-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-310440. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. MW-200 (400-138061-1), MW-201 (400-138061-2), MW-202 (400-138061-3), MW-203 (400-138061-4), MW-204 (400-138061-5), MW-205 (400-138061-6), MW-206 (400-138061-7), DUP-02 (400-138061-8), FB-02 (400-138061-9), EB-02 (400-138061-10) and DUP-03 (400-138061-11)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-310434. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. MW-200 (400-138061-1), MW-201 (400-138061-2), MW-202 (400-138061-3), MW-203 (400-138061-4), MW-204 (400-138061-5), MW-205 (400-138061-6), MW-206 (400-138061-7), DUP-02 (400-138061-8), FB-02 (400-138061-9), EB-02 (400-138061-10) and DUP-03 (400-138061-11)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-138061-1	MW-200	Water	05/16/17 13:35	05/17/17 13:39
400-138061-2	MW-201	Water	05/17/17 11:17	05/17/17 13:39
400-138061-3	MW-202	Water	05/17/17 12:28	05/17/17 13:39
400-138061-4	MW-203	Water	05/17/17 09:49	05/17/17 13:39
400-138061-5	MW-204	Water	05/17/17 08:35	05/17/17 13:39
400-138061-6	MW-205	Water	05/17/17 07:47	05/17/17 13:39
400-138061-7	MW-206	Water	05/17/17 06:41	05/17/17 13:39
400-138061-8	DUP-02	Water	05/16/17 12:35	05/17/17 13:39
400-138061-9	FB-02	Water	05/17/17 10:35	05/17/17 13:39
400-138061-10	EB-02	Water	05/17/17 12:40	05/17/17 13:39
400-138061-11	DUP-03	Water	05/17/17 08:49	05/17/17 13:39

Client Sample ID: MW-200

Date Collected: 05/16/17 13:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-1

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	6.62		0.451	0.748	1.00	0.110	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	10.3		0.760	1.22	1.00	0.486	pCi/L	05/25/17 08:14	06/07/17 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:33*	*1*
Y Carrier	*80.7*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:33*	*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	16.9		0.884	1.43	5.00	0.486	pCi/L		06/18/17 13:14	1

Client Sample ID: MW-201
Date Collected: 05/17/17 11:17
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-2
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	2.76		0.281	0.375	1.00	0.0942	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.29		0.479	0.620	1.00	0.393	pCi/L	05/25/17 08:14	06/07/17 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:33*	*1*
Y Carrier	*89.7*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:33*	*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	7.05		0.555	0.725	5.00	0.393	pCi/L		06/18/17 13:14	1

Client Sample ID: MW-202
Date Collected: 05/17/17 12:28
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-3
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	0.790		0.166	0.180	1.00	0.106	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.6*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.765		0.317	0.324	1.00	0.444	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.6*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*81.9*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*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	1.56		0.357	0.371	5.00	0.444	pCi/L		06/18/17 13:14	1

Client Sample ID: MW-203

Date Collected: 05/17/17 09:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-4

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	1.52		0.209	0.250	1.00	0.0861	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.18		0.469	0.607	1.00	0.371	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*85.2*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*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	5.70		0.514	0.656	5.00	0.371	pCi/L		06/18/17 13:14	1

Client Sample ID: MW-204
Date Collected: 05/17/17 08:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-5
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	1.17		0.186	0.214	1.00	0.102	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	12.2		0.778	1.37	1.00	0.366	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*76.6*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*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	13.4		0.800	1.38	5.00	0.366	pCi/L		06/18/17 13:14	1

Client Sample ID: MW-205

Date Collected: 05/17/17 07:47
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-6

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	**0.155**		0.0869	0.0880	1.00	0.114	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.371	U	0.243	0.245	1.00	0.374	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*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	**0.526**		0.258	0.260	5.00	0.374	pCi/L		06/18/17 13:14	1

Client Sample ID: MW-206

Date Collected: 05/17/17 06:41
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-7

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	10.3		0.544	1.08	1.00	0.0937	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	16.1		0.858	1.71	1.00	0.407	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*87.9*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*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		1.02	2.02	5.00	0.407	pCi/L		06/18/17 13:14	1

Client Sample ID: DUP-02
Date Collected: 05/16/17 12:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-8
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	6.17		0.436	0.706	1.00	0.0797	pCi/L	05/25/17 07:45	06/16/17 17:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	8.27		0.644	0.996	1.00	0.372	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*88.6*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*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	14.4		0.778	1.22	5.00	0.372	pCi/L		06/18/17 13:14	1

Client Sample ID: FB-02

Date Collected: 05/17/17 10:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-9

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	0.0452	U	0.0548	0.0550	1.00	0.0899	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0683	U	0.200	0.200	1.00	0.348	pCi/L	05/25/17 08:14	06/07/17 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:31*	*1*
Y Carrier	*85.2*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:31*	*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	0.114	U	0.207	0.207	5.00	0.348	pCi/L		06/18/17 13:14	1

Client Sample ID: EB-02

Date Collected: 05/17/17 12:40
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-10

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	-0.0333	U	0.0319	0.0321	1.00	0.0950	pCi/L	05/25/17 07:45	06/16/17 17:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0827	U	0.208	0.208	1.00	0.390	pCi/L	05/25/17 08:14	06/07/17 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:31*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:31*	*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	-0.116	U	0.211	0.211	5.00	0.390	pCi/L		06/18/17 13:14	1

Client Sample ID: DUP-03

Date Collected: 05/17/17 08:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-11

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	1.44		0.211	0.248	1.00	0.112	pCi/L	05/25/17 07:45	06/16/17 17:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.10		0.467	0.601	1.00	0.364	pCi/L	05/25/17 08:14	06/07/17 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:31*	*1*
Y Carrier	*89.7*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:31*	*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	5.55		0.512	0.650	5.00	0.364	pCi/L		06/18/17 13:14	1

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 Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 05/16/17 13:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:33	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: MW-201
Date Collected: 05/17/17 11:17
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:33	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: MW-202
Date Collected: 05/17/17 12:28
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:32	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: MW-203
Date Collected: 05/17/17 09:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:32	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

Client Sample ID: MW-204
Date Collected: 05/17/17 08:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:32	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: MW-205
Date Collected: 05/17/17 07:47
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:32	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: MW-206
Date Collected: 05/17/17 06:41
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:32	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: DUP-02
Date Collected: 05/16/17 12:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313771	06/16/17 17:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:32	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

Client Sample ID: FB-02

Date Collected: 05/17/17 10:35
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: EB-02

Date Collected: 05/17/17 12:40
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Client Sample ID: DUP-03

Date Collected: 05/17/17 08:49
Date Received: 05/17/17 13:39

Lab Sample ID: 400-138061-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310434	05/25/17 07:45	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310440	05/25/17 08:14	LDE	TAL SL
Total/NA	Analysis	9320		1	312165	06/07/17 14:31	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313879	06/18/17 13:14	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 310434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	PrecSep-21	
400-138061-2	MW-201	Total/NA	Water	PrecSep-21	
400-138061-3	MW-202	Total/NA	Water	PrecSep-21	
400-138061-4	MW-203	Total/NA	Water	PrecSep-21	
400-138061-5	MW-204	Total/NA	Water	PrecSep-21	
400-138061-6	MW-205	Total/NA	Water	PrecSep-21	
400-138061-7	MW-206	Total/NA	Water	PrecSep-21	
400-138061-8	DUP-02	Total/NA	Water	PrecSep-21	
400-138061-9	FB-02	Total/NA	Water	PrecSep-21	
400-138061-10	EB-02	Total/NA	Water	PrecSep-21	
400-138061-11	DUP-03	Total/NA	Water	PrecSep-21	
MB 160-310434/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-310434/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-310434/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 310440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138061-1	MW-200	Total/NA	Water	PrecSep_0	
400-138061-2	MW-201	Total/NA	Water	PrecSep_0	
400-138061-3	MW-202	Total/NA	Water	PrecSep_0	
400-138061-4	MW-203	Total/NA	Water	PrecSep_0	
400-138061-5	MW-204	Total/NA	Water	PrecSep_0	
400-138061-6	MW-205	Total/NA	Water	PrecSep_0	
400-138061-7	MW-206	Total/NA	Water	PrecSep_0	
400-138061-8	DUP-02	Total/NA	Water	PrecSep_0	
400-138061-9	FB-02	Total/NA	Water	PrecSep_0	
400-138061-10	EB-02	Total/NA	Water	PrecSep_0	
400-138061-11	DUP-03	Total/NA	Water	PrecSep_0	
MB 160-310440/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-310440/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-310440/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-310434/1-A
Matrix: Water
Analysis Batch: 313774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310434

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.003937	U	0.0550	0.0550	1.00	0.109	pCi/L	05/25/17 07:45	06/16/17 17:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.1*		*40 - 110*	*05/25/17 07:45*	*06/16/17 17:55*	*1*

Lab Sample ID: LCS 160-310434/2-A
Matrix: Water
Analysis Batch: 313774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310434

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.45		1.08	1.00	0.0913	pCi/L	92	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*40 - 110*

Lab Sample ID: LCSD 160-310434/3-A
Matrix: Water
Analysis Batch: 313774

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 310434

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	10.02		1.04	1.00	0.107	pCi/L	88	68 - 137	0.20	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-310440/1-A
Matrix: Water
Analysis Batch: 312165

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310440

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2683	U	0.230	0.231	1.00	0.367	pCi/L	05/25/17 08:14	06/07/17 14:32	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.1*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*
Y Carrier	*85.2*		*40 - 110*	*05/25/17 08:14*	*06/07/17 14:32*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-310440/2-A
Matrix: Water
Analysis Batch: 312165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310440

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.3	14.35		1.54	1.00	0.360	pCi/L	108	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.9*		*40 - 110*
Y Carrier	*87.5*		*40 - 110*

Lab Sample ID: LCSD 160-310440/3-A
Matrix: Water
Analysis Batch: 312165

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 310440

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.3	14.69		1.58	1.00	0.388	pCi/L	110	56 - 140	0.11	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-137927-A-1 DU
Matrix: Water
Analysis Batch: 313879

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	0.575			0.4406	U	0.320	5.00	0.496	pCi/L			0.21	

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 Sides	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: 1 - 1
Company: Gulf Power Company				Job #: 400-138061
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 Plant Crist	Project #: 40005424			
Site: Gypsum Storage Area	SSOW#:			

Analysis Requested

400-138061 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-200	5/16/17	1335	G	Water			X	X	X	X		
MW-201	5/17/17	1117	G	Water								
MW-202	5/17/17	1228	G	Water								
MW-203	5/17/17	0949	G	Water								
MW-204	5/17/17	0835	G	Water								
MW-205	5/17/17	0747	G	Water								
MW-206	5/17/17	0641	G	Water								
Dup-02	5/16/17	1235	G	W								
FB-02	5/17/17	1035	G	W								
EB-02	5/17/17	1240	G	W			X	X	X	X		
Dup-03	5/17/17	0849	G	W			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
1		5/17/17 1339	RDH		5/17/17 1339	TA-PEN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0, 0.0, 0.0 °C IR

6/19/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-138061-2
SDG Number: Gypsum Storage Area

Login Number: 138061
List Number: 1
Creator: Siddoway, Benjamin

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	0.0°C, 0.0°C, 0.0°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138061-2
SDG: Gypsum Storage Area

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-138178-1
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/8/2017 6:40:58 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 21
Chronicle 22
QC Association 26
QC Sample Results 30
Chain of Custody 37
Receipt Checklists 38
Certification Summary 39

Job ID: 400-138178-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-138178-1

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 355143 and analytical batch 355705 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-104 (400-138178-4) and MW-110 (400-138178-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-138178-4), MW-105 (400-138178-5) and MW-110 (400-138178-8). 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-103 (400-138178-3), MW-104 (400-138178-4), MW-105 (400-138178-5) and MW-110 (400-138178-8). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 354812 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-101 — Lab Sample ID: 400-138178-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0095		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.38		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.5				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-138178-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0095		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.71		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.5				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-138178-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.068		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.44		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0036		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	35		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.75				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-138178-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0087		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.027		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.0016	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	61		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0023	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.023		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0029		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.024		0.0050	0.0032	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-104 (Continued) — Lab Sample ID: 400-138178-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.018		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00040	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	15		1.0	0.42	mg/L	100		6020	Total Recoverable
Mercury	0.0014		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	190		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.47		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	790		130	35	mg/L	25		SM 4500 SO4 E	Total/NA
Field pH	3.65				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-138178-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0036		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.051		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.5		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	68		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0020	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Molybdenum	0.0043	I	0.015	0.00085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	360		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	60		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	35		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.88				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-138178-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.060		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.41		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00059	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.68				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-138178-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-109 (Continued) — Lab Sample ID: 400-138178-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.081		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0050		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0055		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.43				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-138178-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00051	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0065		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0084		0.0050	0.0032	mg/L	5		6020	Total Recoverable
Selenium	0.0034		0.0013	0.00024	mg/L	5		6020	Total Recoverable
Thallium	0.00028	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	4.4		0.25	0.11	mg/L	25		6020	Total Recoverable
Mercury	0.0074		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	640		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	140		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Sulfate	270		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.59				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-04 — Lab Sample ID: 400-138178-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0093		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.036	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.37		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: FB-03 — Lab Sample ID: 400-138178-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.029	I	0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: EB-03

Lab Sample ID: 400-138178-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00059	I	0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.025	I	0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 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

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 Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-138178-1	MW-101	Water	05/18/17 07:19	05/19/17 08:27
400-138178-2	MW-102	Water	05/18/17 17:12	05/19/17 08:27
400-138178-3	MW-103	Water	05/18/17 15:38	05/19/17 08:27
400-138178-4	MW-104	Water	05/18/17 11:18	05/19/17 08:27
400-138178-5	MW-105	Water	05/18/17 09:42	05/19/17 08:27
400-138178-6	MW-106	Water	05/18/17 08:34	05/19/17 08:27
400-138178-7	MW-109	Water	05/18/17 12:12	05/19/17 08:27
400-138178-8	MW-110	Water	05/18/17 14:34	05/19/17 08:27
400-138178-9	DUP-04	Water	05/18/17 06:19	05/19/17 08:27
400-138178-10	FB-03	Water	05/18/17 14:15	05/19/17 08:27
400-138178-11	EB-03	Water	05/18/17 15:45	05/19/17 08:27

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-101

Date Collected: 05/18/17 07:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-1

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		05/28/17 08:36	06/01/17 13:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 13:54	5
Barium	**0.0095**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 13:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 13:54	5
Boron	0.021	U	0.050	0.021	mg/L		05/28/17 08:36	06/01/17 13:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 13:54	5
Calcium	**0.38**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 13:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 13:54	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 13:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 13:54	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 13:54	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 13:54	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 13:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 13:54	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		05/27/17 13:02	05/30/17 14:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10**		5.0	3.4	mg/L			05/21/17 07:57	1
Chloride	**5.0**		2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 15:52	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/24/17 11:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.5**				SU			05/18/17 07:19	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-102

Date Collected: 05/18/17 17:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-2

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		05/28/17 08:36	06/01/17 13:58	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 13:58	5
Barium	**0.0095**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 13:58	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 13:58	5
Boron	0.021	U	0.050	0.021	mg/L		05/28/17 08:36	06/01/17 13:58	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 13:58	5
Calcium	**0.71**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 13:58	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 13:58	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 13:58	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 13:58	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 13:58	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 13:58	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 13:58	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 13:58	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		05/27/17 13:02	05/30/17 14:30	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**38**		5.0	3.4	mg/L			05/21/17 07:57	1
Chloride	**5.7**		2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 15:55	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/24/17 11:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.5**				SU			05/18/17 17:12	1

Client Sample ID: MW-103

Date Collected: 05/18/17 15:38
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-3

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		05/28/17 08:36	06/01/17 14:03	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 14:03	5
Barium	**0.068**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 14:03	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:03	5
Boron	**0.44**		0.050	0.021	mg/L		05/28/17 08:36	06/01/17 14:03	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:03	5
Calcium	**3.9**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 14:03	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 14:03	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 14:03	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 14:03	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 14:03	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 14:03	5
Selenium	**0.0036**		0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 14:03	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 14:03	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		05/27/17 13:02	05/30/17 14:32	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**100**		5.0	3.4	mg/L			05/21/17 07:57	1
Chloride	**9.9**		2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:31	1
Sulfate	**35**		25	7.0	mg/L			05/24/17 13:09	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.75**				SU			05/18/17 15:38	1

Client Sample ID: MW-104

Date Collected: 05/18/17 11:18
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-4

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		05/28/17 08:36	06/01/17 14:07	5
Arsenic	**0.0087**		0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 14:07	5
Barium	**0.027**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 14:07	5
Beryllium	**0.0016**	**I**	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:07	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:07	5
Calcium	**61**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 14:07	5
Chromium	**0.0023**	**I**	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 14:07	5
Cobalt	**0.023**		0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 14:07	5
Lead	**0.0029**		0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 14:07	5
Lithium	**0.024**		0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 14:07	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 14:07	5
Selenium	**0.018**		0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 14:07	5
Thallium	**0.00040**	**I**	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 14:07	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**15**		1.0	0.42	mg/L		05/28/17 08:36	06/01/17 14:16	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0014**		0.00020	0.000070	mg/L		05/27/17 13:02	05/30/17 14:33	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1500**		5.0	3.4	mg/L			05/21/17 07:57	1
Chloride	**190**		20	6.0	mg/L			05/24/17 13:17	10
Fluoride	**0.47**		0.10	0.032	mg/L			06/01/17 16:37	1
Sulfate	**790**		130	35	mg/L			05/24/17 13:09	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**3.65**				SU			05/18/17 11:18	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-105

Date Collected: 05/18/17 09:42
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-5

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		05/28/17 08:36	06/01/17 14:21	5
Arsenic	**0.0036**		0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 14:21	5
Barium	**0.051**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 14:21	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:21	5
Boron	**1.5**		0.050	0.021	mg/L		05/28/17 08:36	06/01/17 14:21	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:21	5
Calcium	**68**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 14:21	5
Chromium	**0.0020**	**I**	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 14:21	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 14:21	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 14:21	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 14:21	5
Molybdenum	**0.0043**	**I**	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 14:21	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 14:21	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 14:21	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		05/27/17 13:02	05/30/17 14:35	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**360**		5.0	3.4	mg/L			05/21/17 07:57	1
Chloride	**60**		10	3.0	mg/L			05/24/17 13:17	5
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:38	1
Sulfate	**35**		25	7.0	mg/L			05/24/17 13:09	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.88**				SU			05/18/17 09:42	1

Client Sample ID: MW-106

Date Collected: 05/18/17 08:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-6

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		05/28/17 08:36	06/01/17 14:25	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 14:25	5
Barium	**0.010**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 14:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:25	5
Boron	**0.060**		0.050	0.021	mg/L		05/28/17 08:36	06/01/17 14:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:25	5
Calcium	**0.41**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 14:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 14:25	5
Cobalt	**0.00059**	**I**	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 14:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 14:25	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 14:25	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 14:25	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 14:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 14:25	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		05/27/17 13:02	05/30/17 14:46	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			05/21/17 07:57	1
Chloride	**4.0**		2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:41	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/24/17 11:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.68**				SU			05/18/17 08:34	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-109

Date Collected: 05/18/17 12:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-7

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		05/28/17 08:36	06/01/17 14:30	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 14:30	5
Barium	**0.019**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 14:30	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:30	5
Boron	**0.081**		0.050	0.021	mg/L		05/28/17 08:36	06/01/17 14:30	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:30	5
Calcium	**3.0**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 14:30	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 14:30	5
Cobalt	**0.0050**		0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 14:30	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 14:30	5
Lithium	**0.0055**		0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 14:30	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 14:30	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 14:30	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 14:30	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		05/27/17 13:02	05/30/17 14:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			05/24/17 13:56	1
Chloride	**5.0**		2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:45	1
Sulfate	**8.7**		5.0	1.4	mg/L			05/24/17 11:44	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.43**				SU			05/18/17 12:12	1

Client Sample ID: MW-110

Date Collected: 05/18/17 14:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-8

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		05/28/17 08:36	06/01/17 14:34	5
Arsenic	**0.00051**	**I**	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 14:34	5
Barium	**0.045**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 14:34	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:34	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 14:34	5
Calcium	**30**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 14:34	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 14:34	5
Cobalt	**0.0065**		0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 14:34	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 14:34	5
Lithium	**0.0084**		0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 14:34	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 14:34	5
Selenium	**0.0034**		0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 14:34	5
Thallium	**0.00028**	**I**	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 14:34	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.4**		0.25	0.11	mg/L		05/28/17 08:36	06/01/17 14:39	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0074**		0.00020	0.000070	mg/L		05/27/17 13:02	05/30/17 14:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**640**		5.0	3.4	mg/L			05/24/17 13:56	1
Chloride	**140**		20	6.0	mg/L			05/24/17 13:17	10
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:47	1
Sulfate	**270**		50	14	mg/L			05/24/17 13:09	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.59**				SU			05/18/17 14:34	1

Client Sample ID: DUP-04

Date Collected: 05/18/17 06:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-9

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		05/28/17 08:36	06/01/17 15:01	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 15:01	5
Barium	**0.0093**		0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 15:01	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 15:01	5
Boron	**0.036**	**I**	0.050	0.021	mg/L		05/28/17 08:36	06/01/17 15:01	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 15:01	5
Calcium	**0.37**		0.25	0.13	mg/L		05/28/17 08:36	06/01/17 15:01	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 15:01	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 15:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 15:01	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 15:01	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 15:01	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 15:01	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 15:01	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		05/27/17 13:02	05/30/17 14:51	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			05/24/17 17:23	1
Chloride	**5.3**		2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:50	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/24/17 11:44	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: FB-03

Date Collected: 05/18/17 14:15
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-10

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		05/28/17 08:36	06/01/17 15:06	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 15:06	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 15:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 15:06	5
Boron	**0.029**	**I**	0.050	0.021	mg/L		05/28/17 08:36	06/01/17 15:06	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 15:06	5
Calcium	0.13	U	0.25	0.13	mg/L		05/28/17 08:36	06/01/17 15:06	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 15:06	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 15:06	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 15:06	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 15:06	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 15:06	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 15:06	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 15:06	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		05/27/17 13:02	05/30/17 14:53	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			05/24/17 17:23	1
Chloride	0.60	U	2.0	0.60	mg/L			05/24/17 11:51	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 16:54	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/24/17 11:44	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: EB-03

Date Collected: 05/18/17 15:45
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-11

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		05/28/17 08:36	06/01/17 15:10	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 15:10	5
Barium	**0.00059**	**I**	0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 15:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 15:10	5
Boron	**0.025**	**I**	0.050	0.021	mg/L		05/28/17 08:36	06/01/17 15:10	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 15:10	5
Calcium	0.13	U	0.25	0.13	mg/L		05/28/17 08:36	06/01/17 15:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 15:10	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 15:10	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 15:10	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 15:10	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 15:10	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 15:10	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 15:10	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		05/27/17 13:02	05/30/17 14:54	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			05/24/17 17:23	1
Chloride	0.60	U	2.0	0.60	mg/L			05/24/17 11:53	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/01/17 17:44	1
Sulfate	1.4	U	5.0	1.4	mg/L			05/24/17 11:59	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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)

Client Sample ID: MW-101
Date Collected: 05/18/17 07:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 13:54	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354348	05/21/17 07:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 15:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:44	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 07:19	BWS	TAL PEN

Client Sample ID: MW-102
Date Collected: 05/18/17 17:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 13:58	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:30	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354348	05/21/17 07:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 15:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:44	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 17:12	BWS	TAL PEN

Client Sample ID: MW-103
Date Collected: 05/18/17 15:38
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 14:03	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:32	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354348	05/21/17 07:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	354812	05/24/17 13:09	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 15:38	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-104

Date Collected: 05/18/17 11:18
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 14:07	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020	DL	100	355705	06/01/17 14:16	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:33	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354348	05/21/17 07:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	354811	05/24/17 13:17	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:37	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		25	354812	05/24/17 13:09	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 11:18	BWS	TAL PEN

Client Sample ID: MW-105

Date Collected: 05/18/17 09:42
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 14:21	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:35	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354348	05/21/17 07:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	354811	05/24/17 13:17	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:38	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	354812	05/24/17 13:09	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 09:42	BWS	TAL PEN

Client Sample ID: MW-106

Date Collected: 05/18/17 08:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 14:25	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354348	05/21/17 07:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:41	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:44	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 08:34	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: MW-109

Date Collected: 05/18/17 12:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 14:30	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354730	05/24/17 13:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:45	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:44	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 12:12	BWS	TAL PEN

Client Sample ID: MW-110

Date Collected: 05/18/17 14:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 14:34	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020	DL	25	355705	06/01/17 14:39	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354730	05/24/17 13:56	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	354811	05/24/17 13:17	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:47	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	354812	05/24/17 13:09	BJB	TAL PEN
Total/NA	Analysis	Field Sampling		1	356265	05/18/17 14:34	BWS	TAL PEN

Client Sample ID: DUP-04

Date Collected: 05/18/17 06:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 15:01	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354832	05/24/17 17:23	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:44	BJB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 1

Client Sample ID: FB-03

Date Collected: 05/18/17 14:15
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 15:06	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354832	05/24/17 17:23	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:51	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355627	06/01/17 16:54	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:44	BJB	TAL PEN

Client Sample ID: EB-03

Date Collected: 05/18/17 15:45
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			355143	05/28/17 08:36	DN1	TAL PEN
Total Recoverable	Analysis	6020		5	355705	06/01/17 15:10	DRE	TAL PEN
Total/NA	Prep	7470A			354633	05/27/17 13:02	DN1	TAL PEN
Total/NA	Analysis	7470A		1	355339	05/30/17 14:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	354832	05/24/17 17:23	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	354811	05/24/17 11:53	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	355640	06/01/17 17:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	354812	05/24/17 11:59	BJB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 354633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	7470A	
400-138178-2	MW-102	Total/NA	Water	7470A	
400-138178-3	MW-103	Total/NA	Water	7470A	
400-138178-4	MW-104	Total/NA	Water	7470A	
400-138178-5	MW-105	Total/NA	Water	7470A	
400-138178-6	MW-106	Total/NA	Water	7470A	
400-138178-7	MW-109	Total/NA	Water	7470A	
400-138178-8	MW-110	Total/NA	Water	7470A	
400-138178-9	DUP-04	Total/NA	Water	7470A	
400-138178-10	FB-03	Total/NA	Water	7470A	
400-138178-11	EB-03	Total/NA	Water	7470A	
MB 400-354633/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-354633/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-138178-1 MS	MW-101	Total/NA	Water	7470A	
400-138178-1 MSD	MW-101	Total/NA	Water	7470A	

Prep Batch: 355143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total Recoverable	Water	3005A	
400-138178-2	MW-102	Total Recoverable	Water	3005A	
400-138178-3	MW-103	Total Recoverable	Water	3005A	
400-138178-4	MW-104	Total Recoverable	Water	3005A	
400-138178-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-138178-5	MW-105	Total Recoverable	Water	3005A	
400-138178-6	MW-106	Total Recoverable	Water	3005A	
400-138178-7	MW-109	Total Recoverable	Water	3005A	
400-138178-8	MW-110	Total Recoverable	Water	3005A	
400-138178-8 - DL	MW-110	Total Recoverable	Water	3005A	
400-138178-9	DUP-04	Total Recoverable	Water	3005A	
400-138178-10	FB-03	Total Recoverable	Water	3005A	
400-138178-11	EB-03	Total Recoverable	Water	3005A	
MB 400-355143/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-355143/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-138150-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-138150-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 355339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	7470A	354633
400-138178-2	MW-102	Total/NA	Water	7470A	354633
400-138178-3	MW-103	Total/NA	Water	7470A	354633
400-138178-4	MW-104	Total/NA	Water	7470A	354633
400-138178-5	MW-105	Total/NA	Water	7470A	354633
400-138178-6	MW-106	Total/NA	Water	7470A	354633
400-138178-7	MW-109	Total/NA	Water	7470A	354633
400-138178-8	MW-110	Total/NA	Water	7470A	354633
400-138178-9	DUP-04	Total/NA	Water	7470A	354633
400-138178-10	FB-03	Total/NA	Water	7470A	354633
400-138178-11	EB-03	Total/NA	Water	7470A	354633
MB 400-354633/14-A	Method Blank	Total/NA	Water	7470A	354633
LCS 400-354633/15-A	Lab Control Sample	Total/NA	Water	7470A	354633

Metals (Continued)

Analysis Batch: 355339 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1 MS	MW-101	Total/NA	Water	7470A	354633
400-138178-1 MSD	MW-101	Total/NA	Water	7470A	354633

Analysis Batch: 355705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total Recoverable	Water	6020	355143
400-138178-2	MW-102	Total Recoverable	Water	6020	355143
400-138178-3	MW-103	Total Recoverable	Water	6020	355143
400-138178-4	MW-104	Total Recoverable	Water	6020	355143
400-138178-4 - DL	MW-104	Total Recoverable	Water	6020	355143
400-138178-5	MW-105	Total Recoverable	Water	6020	355143
400-138178-6	MW-106	Total Recoverable	Water	6020	355143
400-138178-7	MW-109	Total Recoverable	Water	6020	355143
400-138178-8	MW-110	Total Recoverable	Water	6020	355143
400-138178-8 - DL	MW-110	Total Recoverable	Water	6020	355143
400-138178-9	DUP-04	Total Recoverable	Water	6020	355143
400-138178-10	FB-03	Total Recoverable	Water	6020	355143
400-138178-11	EB-03	Total Recoverable	Water	6020	355143
MB 400-355143/1-A ^5	Method Blank	Total Recoverable	Water	6020	355143
LCS 400-355143/2-A	Lab Control Sample	Total Recoverable	Water	6020	355143
400-138150-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	355143
400-138150-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	355143

General Chemistry

Analysis Batch: 354348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	SM 2540C	
400-138178-2	MW-102	Total/NA	Water	SM 2540C	
400-138178-3	MW-103	Total/NA	Water	SM 2540C	
400-138178-4	MW-104	Total/NA	Water	SM 2540C	
400-138178-5	MW-105	Total/NA	Water	SM 2540C	
400-138178-6	MW-106	Total/NA	Water	SM 2540C	
MB 400-354348/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-354348/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-138178-3 DU	MW-103	Total/NA	Water	SM 2540C	

Analysis Batch: 354730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-7	MW-109	Total/NA	Water	SM 2540C	
400-138178-8	MW-110	Total/NA	Water	SM 2540C	
MB 400-354730/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-354730/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-138178-7 DU	MW-109	Total/NA	Water	SM 2540C	
400-138178-8 DU	MW-110	Total/NA	Water	SM 2540C	

Analysis Batch: 354811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-138178-2	MW-102	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 354811 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-138178-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-138178-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-138178-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-138178-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-138178-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-138178-9	DUP-04	Total/NA	Water	SM 4500 Cl- E	
400-138178-10	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-138178-11	EB-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-354811/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-354811/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-354811/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138178-7 MS	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-138178-7 MSD	MW-109	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 354812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-138178-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-138178-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-138178-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-138178-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-138178-6	MW-106	Total/NA	Water	SM 4500 SO4 E	
400-138178-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-138178-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-138178-9	DUP-04	Total/NA	Water	SM 4500 SO4 E	
400-138178-10	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-138178-11	EB-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-354812/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-354812/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-354812/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-138178-7 MS	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-138178-7 MSD	MW-109	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 354832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-9	DUP-04	Total/NA	Water	SM 2540C	
400-138178-10	FB-03	Total/NA	Water	SM 2540C	
400-138178-11	EB-03	Total/NA	Water	SM 2540C	
MB 400-354832/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-354832/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-138209-I-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 355627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	SM 4500 F C	
400-138178-2	MW-102	Total/NA	Water	SM 4500 F C	
400-138178-3	MW-103	Total/NA	Water	SM 4500 F C	
400-138178-4	MW-104	Total/NA	Water	SM 4500 F C	
400-138178-5	MW-105	Total/NA	Water	SM 4500 F C	
400-138178-6	MW-106	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 355627 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-7	MW-109	Total/NA	Water	SM 4500 F C	
400-138178-8	MW-110	Total/NA	Water	SM 4500 F C	
400-138178-9	DUP-04	Total/NA	Water	SM 4500 F C	
400-138178-10	FB-03	Total/NA	Water	SM 4500 F C	
MB 400-355627/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355627/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-138128-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-138128-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-138178-3 DU	MW-103	Total/NA	Water	SM 4500 F C	

Analysis Batch: 355640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-11	EB-03	Total/NA	Water	SM 4500 F C	
MB 400-355640/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-355640/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-138208-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-138208-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-138208-A-8 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 356265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	Field Sampling	
400-138178-2	MW-102	Total/NA	Water	Field Sampling	
400-138178-3	MW-103	Total/NA	Water	Field Sampling	
400-138178-4	MW-104	Total/NA	Water	Field Sampling	
400-138178-5	MW-105	Total/NA	Water	Field Sampling	
400-138178-6	MW-106	Total/NA	Water	Field Sampling	
400-138178-7	MW-109	Total/NA	Water	Field Sampling	
400-138178-8	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-355143/1-A ^5
Matrix: Water
Analysis Batch: 355705

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 355143

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		05/28/17 08:36	06/01/17 12:51	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		05/28/17 08:36	06/01/17 12:51	5
Barium	0.00049	U	0.0025	0.00049	mg/L		05/28/17 08:36	06/01/17 12:51	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 12:51	5
Boron	0.021	U	0.050	0.021	mg/L		05/28/17 08:36	06/01/17 12:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		05/28/17 08:36	06/01/17 12:51	5
Calcium	0.13	U	0.25	0.13	mg/L		05/28/17 08:36	06/01/17 12:51	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		05/28/17 08:36	06/01/17 12:51	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		05/28/17 08:36	06/01/17 12:51	5
Lead	0.00035	U	0.0013	0.00035	mg/L		05/28/17 08:36	06/01/17 12:51	5
Lithium	0.0032	U	0.0050	0.0032	mg/L		05/28/17 08:36	06/01/17 12:51	5
Molybdenum	0.00085	U	0.015	0.00085	mg/L		05/28/17 08:36	06/01/17 12:51	5
Selenium	0.00024	U	0.0013	0.00024	mg/L		05/28/17 08:36	06/01/17 12:51	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		05/28/17 08:36	06/01/17 12:51	5

Lab Sample ID: LCS 400-355143/2-A
Matrix: Water
Analysis Batch: 355705

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 355143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0556		mg/L		111	80 - 120
Arsenic	0.0500	0.0554		mg/L		111	80 - 120
Barium	0.0500	0.0542		mg/L		108	80 - 120
Beryllium	0.0500	0.0559		mg/L		112	80 - 120
Boron	0.100	0.112		mg/L		112	80 - 120
Cadmium	0.0500	0.0539		mg/L		108	80 - 120
Calcium	5.00	4.73		mg/L		95	80 - 120
Chromium	0.0500	0.0511		mg/L		102	80 - 120
Cobalt	0.0500	0.0507		mg/L		101	80 - 120
Lead	0.0500	0.0525		mg/L		105	80 - 120
Lithium	0.0500	0.0535		mg/L		107	80 - 120
Molybdenum	0.100	0.106		mg/L		106	80 - 120
Selenium	0.0500	0.0536		mg/L		107	80 - 120
Thallium	0.0100	0.0109		mg/L		109	80 - 120

Lab Sample ID: 400-138150-B-1-B MS ^5
Matrix: Water
Analysis Batch: 355705

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 355143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0570		mg/L		114	75 - 125
Arsenic	0.0013		0.0500	0.0559		mg/L		109	75 - 125
Barium	0.012		0.0500	0.0638		mg/L		103	75 - 125
Beryllium	0.00034	U	0.0500	0.0546		mg/L		109	75 - 125
Boron	0.048	I	0.100	0.157		mg/L		109	75 - 125
Cadmium	0.00034	U	0.0500	0.0524		mg/L		105	75 - 125
Calcium	46		5.00	46.0	J3	mg/L		-6	75 - 125
Chromium	0.0011	U	0.0500	0.0515		mg/L		103	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-138150-B-1-B MS ^5
Matrix: Water
Analysis Batch: 355705

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 355143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00040	U	0.0500	0.0503		mg/L		101	75 - 125
Lead	0.00035	U	0.0500	0.0509		mg/L		102	75 - 125
Lithium	0.0032	U	0.0500	0.0495		mg/L		99	75 - 125
Molybdenum	0.0084	I	0.100	0.114		mg/L		105	75 - 125
Selenium	0.0035		0.0500	0.0566		mg/L		106	75 - 125
Thallium	0.000085	U	0.0100	0.0106		mg/L		106	75 - 125

Lab Sample ID: 400-138150-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 355705

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 355143

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	0.0559		mg/L		112	75 - 125	2	20
Arsenic	0.0013		0.0500	0.0554		mg/L		108	75 - 125	1	20
Barium	0.012		0.0500	0.0641		mg/L		104	75 - 125	0	20
Beryllium	0.00034	U	0.0500	0.0554		mg/L		111	75 - 125	1	20
Boron	0.048	I	0.100	0.150		mg/L		102	75 - 125	4	20
Cadmium	0.00034	U	0.0500	0.0532		mg/L		106	75 - 125	2	20
Calcium	46		5.00	45.9	J3	mg/L		-8	75 - 125	0	20
Chromium	0.0011	U	0.0500	0.0505		mg/L		101	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0502		mg/L		100	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0514		mg/L		103	75 - 125	1	20
Lithium	0.0032	U	0.0500	0.0501		mg/L		100	75 - 125	1	20
Molybdenum	0.0084	I	0.100	0.110		mg/L		101	75 - 125	4	20
Selenium	0.0035		0.0500	0.0554		mg/L		104	75 - 125	2	20
Thallium	0.000085	U	0.0100	0.0107		mg/L		107	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-354633/14-A
Matrix: Water
Analysis Batch: 355339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354633

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		05/27/17 13:02	05/30/17 14:20	1

Lab Sample ID: LCS 400-354633/15-A
Matrix: Water
Analysis Batch: 355339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00111		mg/L		110	80 - 120

Lab Sample ID: 400-138178-1 MS
Matrix: Water
Analysis Batch: 355339

Client Sample ID: MW-101
Prep Type: Total/NA
Prep Batch: 354633

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00217		mg/L		108	80 - 120

Lab Sample ID: 400-138178-1 MSD
Matrix: Water
Analysis Batch: 355339

Client Sample ID: MW-101
Prep Type: Total/NA
Prep Batch: 354633

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	0.00209		mg/L		104	80 - 120	4	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-354348/1
Matrix: Water
Analysis Batch: 354348

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			05/21/17 07:57	1

Lab Sample ID: LCS 400-354348/2
Matrix: Water
Analysis Batch: 354348

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-138178-3 DU
Matrix: Water
Analysis Batch: 354348

Client Sample ID: MW-103
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	100		102		mg/L		0	5

Lab Sample ID: MB 400-354730/1
Matrix: Water
Analysis Batch: 354730

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			05/24/17 13:56	1

Lab Sample ID: LCS 400-354730/2
Matrix: Water
Analysis Batch: 354730

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	264		mg/L		90	78 - 122

Lab Sample ID: 400-138178-7 DU
Matrix: Water
Analysis Batch: 354730

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	24		24.0		mg/L		0	5

Lab Sample ID: 400-138178-8 DU
Matrix: Water
Analysis Batch: 354730

Client Sample ID: MW-110
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	640		636		mg/L		0	5

Lab Sample ID: MB 400-354832/1
Matrix: Water
Analysis Batch: 354832

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			05/24/17 17:23	1

Lab Sample ID: LCS 400-354832/2
Matrix: Water
Analysis Batch: 354832

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	254		mg/L		87	78 - 122

Lab Sample ID: 400-138209-I-3 DU
Matrix: Water
Analysis Batch: 354832

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	1600		1620		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-354811/6
Matrix: Water
Analysis Batch: 354811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			05/24/17 11:11	1

Lab Sample ID: LCS 400-354811/7
Matrix: Water
Analysis Batch: 354811

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	32.3		mg/L		108	90 - 110

Lab Sample ID: MRL 400-354811/3
Matrix: Water
Analysis Batch: 354811

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	1.81	I	mg/L		91	50 - 150

Lab Sample ID: 400-138178-7 MS
Matrix: Water
Analysis Batch: 354811

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.0		10.0	14.3		mg/L		94	73 - 120

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-138178-7 MSD
Matrix: Water
Analysis Batch: 354811

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.0		10.0	14.1		mg/L		91	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-355627/3
Matrix: Water
Analysis Batch: 355627

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			06/01/17 15:23	1

Lab Sample ID: LCS 400-355627/5
Matrix: Water
Analysis Batch: 355627

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	3.94		mg/L		99	90 - 110

Lab Sample ID: 400-138128-A-11 MS
Matrix: Water
Analysis Batch: 355627

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	1.02		mg/L		92	75 - 125

Lab Sample ID: 400-138128-A-11 MSD
Matrix: Water
Analysis Batch: 355627

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	1.02		mg/L		92	75 - 125	0	4

Lab Sample ID: 400-138178-3 DU
Matrix: Water
Analysis Batch: 355627

Client Sample ID: MW-103
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 400-355640/3
Matrix: Water
Analysis Batch: 355640

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			06/01/17 17:31	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-355640/4
Matrix: Water
Analysis Batch: 355640

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	4.10		mg/L		103	90 - 110		

Lab Sample ID: 400-138208-A-1 MS
Matrix: Water
Analysis Batch: 355640

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	0.51		1.00	1.58		mg/L		107	75 - 125		

Lab Sample ID: 400-138208-A-1 MSD
Matrix: Water
Analysis Batch: 355640

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	0.51		1.00	1.58		mg/L		107	75 - 125	0	4

Lab Sample ID: 400-138208-A-8 DU
Matrix: Water
Analysis Batch: 355640

Client Sample ID: Duplicate
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 400-354812/6
Matrix: Water
Analysis Batch: 354812

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			05/24/17 11:13	1

Lab Sample ID: LCS 400-354812/7
Matrix: Water
Analysis Batch: 354812

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 400-354812/3
Matrix: Water
Analysis Batch: 354812

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	4.21	I	mg/L		84	50 - 150		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-138178-7 MS
Matrix: Water
Analysis Batch: 354812

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	8.7		10.0	6.89	J3	mg/L		-18	77 - 128		

Lab Sample ID: 400-138178-7 MSD
Matrix: Water
Analysis Batch: 354812

Client Sample ID: MW-109
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	8.7		10.0	7.14	J3	mg/L		-15	77 - 128	4	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 Sides	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: 1-1
Company: Gulf Power Company				Job #: 400-138178
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 Plant Crist	Project #: 40005424			
Site: Landfill 1	SSOW#:			

400-138178 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-101	5/18/17	0719	G	Water			X	X	X	X		
MW-102	5/18/17	1722	G	Water								
MW-103	5/18/17	1538	G	Water								
MW-104	5/18/17	1118	G	Water								
MW-105	5/18/17	0942	G	Water								
MW-106	5/18/17	0834	G	Water								
MW-109	5/18/17	1212	G	Water								
MW-110	5/18/17	1434	G	Water								
Dup- 04	5/18/17	0619	G	W								
FB- 03	5/18/17	1415	G	W								
EB- 03	5/18/17	1545	G	W			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
	5/18/17 0827	ZPH		5/19/17	0827
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: 0.0, 0.0, 0.0°C IR2

6/8/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-138178-1
SDG Number: Landfill 1

Login Number: 138178
List Number: 1
Creator: Siddoway, Benjamin

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	0.0°C, 0.0°C, 0.0°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-138178-1
SDG: Landfill 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-138178-2
TestAmerica Sample Delivery Group: Landfill 1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
6/20/2017 1:47:28 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Method Summary 4
Sample Summary 5
Client Sample Results 6
Definitions 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 24
Receipt Checklists 25
Certification Summary 26

Job ID: 400-138178-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-138178-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-310487. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision: MW-101 (400-138178-1), MW-102 (400-138178-2), MW-103 (400-138178-3), MW-104 (400-138178-4), MW-105 (400-138178-5), MW-106 (400-138178-6), MW-109 (400-138178-7), MW-110 (400-138178-8), DUP-04 (400-138178-9), FB-03 (400-138178-10) and EB-03 (400-138178-11).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-310436. Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision: MW-101 (400-138178-1), MW-102 (400-138178-2), MW-103 (400-138178-3), MW-104 (400-138178-4), MW-105 (400-138178-5), MW-106 (400-138178-6), MW-109 (400-138178-7), MW-110 (400-138178-8), DUP-04 (400-138178-9), FB-03 (400-138178-10) and EB-03 (400-138178-11).

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 1

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

Protocol References:

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 = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-138178-1	MW-101	Water	05/18/17 07:19	05/19/17 08:27
400-138178-2	MW-102	Water	05/18/17 17:12	05/19/17 08:27
400-138178-3	MW-103	Water	05/18/17 15:38	05/19/17 08:27
400-138178-4	MW-104	Water	05/18/17 11:18	05/19/17 08:27
400-138178-5	MW-105	Water	05/18/17 09:42	05/19/17 08:27
400-138178-6	MW-106	Water	05/18/17 08:34	05/19/17 08:27
400-138178-7	MW-109	Water	05/18/17 12:12	05/19/17 08:27
400-138178-8	MW-110	Water	05/18/17 14:34	05/19/17 08:27
400-138178-9	DUP-04	Water	05/18/17 06:19	05/19/17 08:27
400-138178-10	FB-03	Water	05/18/17 14:15	05/19/17 08:27
400-138178-11	EB-03	Water	05/18/17 15:45	05/19/17 08:27

Client Sample ID: MW-101

Date Collected: 05/18/17 07:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-1

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	0.258		0.0929	0.0958	1.00	0.0895	pCi/L	05/25/17 07:49	06/16/17 17:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:13*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.488		0.229	0.233	1.00	0.335	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*87.9*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	0.745		0.247	0.252	5.00	0.335	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-102

Date Collected: 05/18/17 17:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-2

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	0.442		0.116	0.123	1.00	0.0837	pCi/L	05/25/17 07:49	06/16/17 17:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:13*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.792		0.268	0.278	1.00	0.368	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	1.23		0.292	0.304	5.00	0.368	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-103

Date Collected: 05/18/17 15:38
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-3

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	2.30		0.250	0.324	1.00	0.0895	pCi/L	05/25/17 07:49	06/16/17 17:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:13*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.97		0.448	0.640	1.00	0.323	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*89.0*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	7.26		0.513	0.718	5.00	0.323	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-104

Date Collected: 05/18/17 11:18
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-4

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	2.73		0.275	0.369	1.00	0.0945	pCi/L	05/25/17 07:49	06/16/17 17:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:11*	*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		0.797	1.76	1.00	0.315	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	19.8		0.843	1.80	5.00	0.315	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-105

Date Collected: 05/18/17 09:42
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-5

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	1.10		0.172	0.199	1.00	0.0824	pCi/L	05/25/17 07:49	06/16/17 17:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:11*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.90		0.304	0.351	1.00	0.286	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*87.5*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	3.00		0.349	0.403	5.00	0.286	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-106

Date Collected: 05/18/17 08:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-6

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	**0.150**		0.0696	0.0709	1.00	0.0724	pCi/L	05/25/17 07:49	06/16/17 17:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:11*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	U	0.170	0.171	1.00	0.272	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*89.7*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	**0.338**		0.183	0.185	5.00	0.272	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-109

Date Collected: 05/18/17 12:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-7

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	0.476		0.116	0.123	1.00	0.0544	pCi/L	05/25/17 07:49	06/16/17 17:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.22		0.264	0.287	1.00	0.301	pCi/L	05/25/17 10:44	06/07/17 13:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:49*	*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	1.70		0.288	0.312	5.00	0.301	pCi/L		06/20/17 09:57	1

Client Sample ID: MW-110

Date Collected: 05/18/17 14:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-8

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	2.27		0.251	0.324	1.00	0.0748	pCi/L	05/25/17 07:49	06/16/17 17:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.04		0.478	0.732	1.00	0.283	pCi/L	05/25/17 10:44	06/07/17 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*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	8.31		0.539	0.801	5.00	0.283	pCi/L		06/20/17 09:57	1

Client Sample ID: DUP-04

Date Collected: 05/18/17 06:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-9

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	0.311		0.0953	0.0993	1.00	0.0669	pCi/L	05/25/17 07:49	06/16/17 17:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.523		0.200	0.206	1.00	0.272	pCi/L	05/25/17 10:44	06/07/17 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*1*
Y Carrier	*91.2*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*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	0.834		0.222	0.229	5.00	0.272	pCi/L		06/20/17 09:57	1

Client Sample ID: FB-03

Date Collected: 05/18/17 14:15
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-10

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	0.0409	U	0.0620	0.0621	1.00	0.106	pCi/L	05/25/17 07:49	06/16/17 17:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.154	U	0.173	0.173	1.00	0.283	pCi/L	05/25/17 10:44	06/07/17 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*1*
Y Carrier	*90.8*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*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	0.195	U	0.183	0.184	5.00	0.283	pCi/L		06/20/17 09:57	1

Client Sample ID: EB-03

Date Collected: 05/18/17 15:45
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-11

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	0.00535	U	0.0391	0.0391	1.00	0.0837	pCi/L	05/25/17 07:49	06/16/17 17:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*05/25/17 07:49*	*06/16/17 17:14*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.157	U	0.147	0.147	1.00	0.295	pCi/L	05/25/17 10:44	06/07/17 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*1*
Y Carrier	*88.6*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*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	-0.151	U	0.152	0.153	5.00	0.295	pCi/L		06/20/17 09:57	1

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 Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 1

Client Sample ID: MW-101
Date Collected: 05/18/17 07:19
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313773	06/16/17 17:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: MW-102
Date Collected: 05/18/17 17:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313773	06/16/17 17:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: MW-103
Date Collected: 05/18/17 15:38
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313773	06/16/17 17:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: MW-104
Date Collected: 05/18/17 11:18
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:11	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 1

Client Sample ID: MW-105
Date Collected: 05/18/17 09:42
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:11	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: MW-106
Date Collected: 05/18/17 08:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313774	06/16/17 17:11	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: MW-109
Date Collected: 05/18/17 12:12
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313771	06/16/17 17:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312164	06/07/17 13:49	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: MW-110
Date Collected: 05/18/17 14:34
Date Received: 05/19/17 08:27

Lab Sample ID: 400-138178-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313771	06/16/17 17:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312271	06/07/17 13:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 1

Client Sample ID: DUP-04

Lab Sample ID: 400-138178-9

Date Collected: 05/18/17 06:19

Matrix: Water

Date Received: 05/19/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313771	06/16/17 17:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312271	06/07/17 13:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: FB-03

Lab Sample ID: 400-138178-10

Date Collected: 05/18/17 14:15

Matrix: Water

Date Received: 05/19/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313771	06/16/17 17:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312271	06/07/17 13:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Client Sample ID: EB-03

Lab Sample ID: 400-138178-11

Date Collected: 05/18/17 15:45

Matrix: Water

Date Received: 05/19/17 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310436	05/25/17 07:49	LDE	TAL SL
Total/NA	Analysis	9315		1	313771	06/16/17 17:14	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310487	05/25/17 10:44	LDE	TAL SL
Total/NA	Analysis	9320		1	312271	06/07/17 13:50	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314278	06/20/17 09:57	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 310436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	PrecSep-21	
400-138178-2	MW-102	Total/NA	Water	PrecSep-21	
400-138178-3	MW-103	Total/NA	Water	PrecSep-21	
400-138178-4	MW-104	Total/NA	Water	PrecSep-21	
400-138178-5	MW-105	Total/NA	Water	PrecSep-21	
400-138178-6	MW-106	Total/NA	Water	PrecSep-21	
400-138178-7	MW-109	Total/NA	Water	PrecSep-21	
400-138178-8	MW-110	Total/NA	Water	PrecSep-21	
400-138178-9	DUP-04	Total/NA	Water	PrecSep-21	
400-138178-10	FB-03	Total/NA	Water	PrecSep-21	
400-138178-11	EB-03	Total/NA	Water	PrecSep-21	
MB 160-310436/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-310436/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-310436/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 310487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138178-1	MW-101	Total/NA	Water	PrecSep_0	
400-138178-2	MW-102	Total/NA	Water	PrecSep_0	
400-138178-3	MW-103	Total/NA	Water	PrecSep_0	
400-138178-4	MW-104	Total/NA	Water	PrecSep_0	
400-138178-5	MW-105	Total/NA	Water	PrecSep_0	
400-138178-6	MW-106	Total/NA	Water	PrecSep_0	
400-138178-7	MW-109	Total/NA	Water	PrecSep_0	
400-138178-8	MW-110	Total/NA	Water	PrecSep_0	
400-138178-9	DUP-04	Total/NA	Water	PrecSep_0	
400-138178-10	FB-03	Total/NA	Water	PrecSep_0	
400-138178-11	EB-03	Total/NA	Water	PrecSep_0	
MB 160-310487/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-310487/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-310487/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-310436/1-A
Matrix: Water
Analysis Batch: 313776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310436

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03974	U	0.0578	0.0579	1.00	0.0988	pCi/L	05/25/17 07:49	06/16/17 15:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/25/17 07:49*	*06/16/17 15:14*	*1*

Lab Sample ID: LCS 160-310436/2-A
Matrix: Water
Analysis Batch: 313776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310436

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.79		1.12	1.00	0.104	pCi/L	95	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*

Lab Sample ID: LCSD 160-310436/3-A
Matrix: Water
Analysis Batch: 313776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 310436

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	10.08		1.06	1.00	0.0938	pCi/L	89	68 - 137	0.32	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-310487/1-A
Matrix: Water
Analysis Batch: 312271

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310487

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5041		0.204	0.209	1.00	0.276	pCi/L	05/25/17 10:44	06/07/17 13:50	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*1*
Y Carrier	*85.6*		*40 - 110*	*05/25/17 10:44*	*06/07/17 13:50*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-310487/2-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310487

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.3	13.22		1.40	1.00	0.297	pCi/L	99	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

Lab Sample ID: LCSD 160-310487/3-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 310487

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			13.3	13.03		1.38	1.00	0.295	pCi/L	98	56 - 140	0.07	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*
Y Carrier	*88.6*		*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 Sides	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: 1-1
Company: Gulf Power Company				Job #: 400-138178
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 Plant Crist	Project #: 40005424			
Site: Landfill 1	SSOW#:			

400-138178 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 - 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-101	5/18/17	0719	G	Water			X	X	X	X		
MW-102	5/18/17	1722	G	Water								
MW-103	5/18/17	1538	G	Water								
MW-104	5/18/17	1118	G	Water								
MW-105	5/18/17	0942	G	Water								
MW-106	5/18/17	0834	G	Water								
MW-109	5/18/17	1212	G	Water								
MW-110	5/18/17	1434	G	Water								
Dup- 04	5/18/17	0619	G	W								
FB- 03	5/18/17	1415	G	W								
EB- 03	5/18/17	1545	G	W			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
[signature]	5/18/17 0827	ZPH	[signature]	5/19/17	0827
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: 0.0, 0.0, 0.0°C IR2

6/20/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-138178-2
SDG Number: Landfill 1

Login Number: 138178
List Number: 1
Creator: Siddoway, Benjamin

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	0.0°C, 0.0°C, 0.0°C IR-2
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 Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 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	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: 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	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-138178-2
SDG: Landfill 1

Laboratory: TestAmerica St. Louis (Continued)

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
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

FIELD SAMPLING REPORTS

INITIAL DETECTION EVENT

Product Name: Low-Flow System

Date: 2017-10-02 10:10:27

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Detection	Tubing Diameter	.17 in
Site Name	Plant Crist CCR	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	89.76 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	09:49:21	600.02	21.68	4.64	41.96	2.61	89.80	8.00	172.34
Last 5	09:54:21	900.03	21.78	4.64	41.89	1.55	89.80	8.00	164.18
Last 5	09:59:21	1200.02	21.72	4.62	41.70	1.19	89.80	7.99	158.12
Last 5	10:04:21	1500.02	21.78	4.62	41.74	0.99	89.80	7.99	153.64
Last 5	10:09:21	1800.02	21.92	4.64	41.71	0.84	89.80	7.99	150.03
Variance 0			-0.06	-0.02	-0.19			-0.00	-6.06
Variance 1			0.06	-0.00	0.04			0.00	-4.48
Variance 2			0.14	0.03	-0.03			-0.01	-3.61

Notes

Sample@1009, Partly Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 07:15:54

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	120 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	113 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	95.51 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:04:35	300.06	20.18	4.81	29.58	1.16	95.60	9.00	191.54
Last 5	07:09:35	600.02	20.23	4.67	29.42	0.70	95.59	8.98	187.44
Last 5	07:14:35	900.03	20.19	4.63	29.31	0.56	95.59	8.98	182.48
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.05	-0.14	-0.17			-0.02	-4.10
Variance 2			-0.05	-0.04	-0.11			-0.00	-4.96

Notes

Sample@0715, DUP-04@0615 Sunny 66

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 06:35:10

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-102	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	101.91 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	06:13:31	600.03	21.77	4.53	34.97	5.76	101.95	8.49	176.27
Last 5	06:18:31	900.02	21.69	4.55	35.12	2.40	101.95	8.51	166.07
Last 5	06:23:31	1200.02	21.65	4.56	35.07	0.95	101.95	8.50	159.17
Last 5	06:28:31	1500.02	21.65	4.55	35.07	0.93	101.95	8.53	155.36
Last 5	06:33:31	1800.02	21.62	4.56	35.00	0.85	101.95	8.54	152.75
Variance 0			-0.04	0.01	-0.05			-0.01	-6.90
Variance 1			-0.01	-0.00	-0.00			0.04	-3.82
Variance 2			-0.03	0.01	-0.07			0.01	-2.61

Notes

Sample@0634, DUP -05 @0534 Cloudy 69

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 08:40:27

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	115 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	111.16 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%	+/- 10		+/- 0.2	+/- 10
Last 5	08:18:50	1500.02	22.26	4.99	177.13	15.40	111.18	7.93	129.24
Last 5	08:23:50	1800.02	22.26	5.01	178.25	11.60	111.18	7.92	128.43
Last 5	08:28:50	2100.02	22.30	5.04	178.84	7.93	111.18	7.90	127.08
Last 5	08:33:50	2400.02	22.32	5.05	179.40	5.23	111.18	7.90	126.26
Last 5	08:38:50	2700.02	22.31	5.07	179.86	4.68	111.18	7.89	125.49
Variance 0			0.04	0.04	0.59			-0.02	-1.35
Variance 1			0.02	0.01	0.55			0.00	-0.82
Variance 2			-0.01	0.02	0.46			-0.01	-0.77

Notes

Sample@0839, EB-05@ 0845 Sunny 73

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 10:12:18

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	85 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.599391 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	58.46 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:47:12	900.02	23.24	3.85	1746.02	3.01	58.50	5.62	471.65
Last 5	09:52:12	1200.02	23.22	3.82	1751.39	2.19	58.50	5.58	502.14
Last 5	09:57:12	1500.02	23.29	3.80	1754.29	1.34	58.50	5.57	533.56
Last 5	10:02:12	1800.02	23.36	3.79	1753.02	1.51	58.50	5.56	539.65
Last 5	10:07:12	2100.02	23.42	3.79	1758.42	1.23	58.50	5.56	536.56
Variance 0			0.07	-0.01	2.90			-0.01	31.42
Variance 1			0.07	-0.01	-1.26			-0.01	6.10
Variance 2			0.06	-0.01	5.40			0.00	-3.09

Notes

Sample@1011, Sunny 78

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 09:03:03

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	45 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.420854 L
Well Total Depth	43 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	21.11 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	08:44:51	300.02	22.77	5.99	511.53	21.60	21.13	0.19	-7.63
Last 5	08:49:51	600.02	22.70	6.08	527.78	8.66	21.13	0.14	-22.21
Last 5	08:54:51	900.02	22.71	6.08	533.24	4.11	21.13	0.12	-24.96
Last 5	08:59:51	1200.02	22.71	6.07	535.14	2.94	21.13	0.12	-29.28
Last 5									
Variance 0			-0.07	0.08	16.25			-0.06	-14.58
Variance 1			0.00	0.01	5.45			-0.02	-2.76
Variance 2			-0.00	-0.01	1.91			-0.00	-4.32

Notes

Sample@0902, Sunny 74

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 08:13:35

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-106	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	66.28 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:02:47	300.02	21.28	4.86	27.99	1.54	66.30	8.17	178.07
Last 5	08:07:47	600.03	21.37	4.80	28.11	1.12	66.30	8.34	173.02
Last 5	08:12:47	900.03	21.46	4.77	28.23	0.97	66.30	8.34	168.26
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.09	-0.06	0.13			0.17	-5.06
Variance 2			0.09	-0.02	0.11			-0.01	-4.76

Notes

Sample@0813 Sunny 70

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-02 09:10:17

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Detection	Tubing Diameter	.17 in
Site Name	Plant Crist CCR	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.2 in
Depth to Water	101.18 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:48:23	1200.02	21.33	4.62	33.86	15.20	101.20	8.71	182.92
Last 5	08:53:23	1500.02	21.31	4.63	33.73	11.90	101.20	8.74	176.49
Last 5	08:58:23	1800.03	21.31	4.60	33.67	7.42	101.20	8.75	173.80
Last 5	09:03:23	2100.02	21.32	4.62	33.70	4.86	101.20	8.74	168.94
Last 5	09:08:23	2400.02	21.36	4.63	33.66	4.66	101.20	8.74	164.92
Variance 0			0.00	-0.03	-0.06			0.01	-2.69
Variance 1			0.01	0.02	0.02			-0.01	-4.85
Variance 2			0.04	0.01	-0.04			-0.00	-4.02

Notes

Sample@0909, Cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-02 07:45:59

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Detection	Tubing Diameter	.17 in
Site Name	Plant Crist CCR	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW -108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.2 in
Depth to Water	69.18 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:33:31	300.06	21.46	4.64	40.67	0.62	69.20	8.28	221.61
Last 5	07:38:31	600.03	21.41	4.54	39.94	0.59	69.20	8.35	219.44
Last 5	07:43:31	900.02	21.41	4.54	40.11	0.51	69.20	8.42	212.49
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	-0.09	-0.73			0.08	-2.17
Variance 2			0.00	-0.00	0.18			0.07	-6.94

Notes

Sample@0745, Cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-05 11:30:48

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	135 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	128 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8225621 L
Well Total Depth	133 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	110.4 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%	+/- 10		+/- 0.2	+/- 10
Last 5	11:09:53	1500.02	23.51	4.53	63.12	0.41	110.42	8.68	225.42
Last 5	11:14:53	1800.02	23.53	4.52	63.71	0.48	110.42	8.72	219.23
Last 5	11:19:53	2100.02	23.61	4.52	64.03	0.41	110.42	8.71	215.35
Last 5	11:24:53	2400.02	23.77	4.52	63.99	0.44	110.42	8.68	212.97
Last 5	11:29:53	2700.02	23.78	4.52	64.21	0.37	110.42	8.73	209.79
Variance 0			0.08	-0.00	0.32			-0.01	-3.88
Variance 1			0.16	-0.00	-0.04			-0.03	-2.39
Variance 2			0.00	0.00	0.22			0.05	-3.18

Notes

Sample@1130, Sunny 84

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-06 07:29:38

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Landfill -1	Tubing Diameter	.17 in
Site Name	Plant Crist LF-1CCR	Tubing Length	122 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	114 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	80.68 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	07:13:21	300.02	21.67	5.70	550.07	1.15	80.73	5.78	139.49
Last 5	07:18:21	600.02	21.65	5.75	552.36	0.93	80.73	5.75	124.39
Last 5	07:23:21	900.02	21.64	5.75	553.17	0.49	80.73	5.73	118.08
Last 5	07:28:21	1200.02	21.66	5.73	557.48	0.44	80.73	5.72	114.53
Last 5 Variance 0			-0.01	0.04	2.29			-0.03	-15.10
Variance 1			-0.01	0.00	0.81			-0.02	-6.31
Variance 2			0.01	-0.02	4.31			-0.02	-3.56

Notes

Sample@0728, FB-03 @0710 Cloudy 70

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 07:38:36

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	PP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	16.56 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:27:36	300.07	22.71	4.89	4066.37	0.40	16.60	0.67	197.88
Last 5	07:32:36	600.02	22.66	4.88	4118.43	0.60	16.60	0.55	194.93
Last 5	07:37:36	900.02	22.62	4.89	4085.38	0.73	16.60	0.49	196.64
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	-0.01	52.07			-0.11	-2.94
Variance 2			-0.04	0.00	-33.05			-0.06	1.71

Notes

Sample@0738, partly cloudy 67

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 11:58:26

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	PP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3667322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	44.65 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	11:36:54	2100.02	24.23	4.86	1195.17	15.50	47.68	0.31	143.30
Last 5	11:41:54	2400.02	24.32	4.85	1187.96	11.20	47.68	0.29	140.58
Last 5	11:46:54	2700.02	24.19	4.84	1191.63	7.79	47.68	0.28	137.94
Last 5	11:51:54	3000.02	24.23	4.84	1195.07	5.17	47.68	0.26	134.42
Last 5	11:56:54	3300.02	24.28	4.84	1193.89	4.48	47.69	0.24	129.91
Variance 0			-0.13	-0.00	3.67			-0.01	-2.64
Variance 1			0.04	-0.00	3.44			-0.02	-3.52
Variance 2			0.05	-0.00	-1.18			-0.01	-4.51

Notes

Sample@1157, FB-02@1105, EB-02@1205 Sunny 83

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 12:59:14

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	PP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3667322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	50.50 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:37:28	900.02	23.90	4.44	107.74	12.30	50.55	1.72	152.06
Last 5	12:42:28	1200.02	23.79	4.47	107.13	9.33	50.55	1.95	157.84
Last 5	12:47:28	1500.02	23.98	4.46	108.47	5.22	50.55	2.05	156.53
Last 5	12:52:28	1800.02	24.01	4.46	108.50	4.69	50.55	2.06	156.85
Last 5	12:57:28	2100.02	23.90	4.47	110.26	4.41	50.55	2.06	157.97
Variance 0			0.19	-0.00	1.34			0.10	-1.31
Variance 1			0.03	0.00	0.04			0.02	0.32
Variance 2			-0.11	0.00	1.76			-0.00	1.12

Notes

Sample@1258, DUP-03 @1158 Sunny 87

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 10:33:31

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	BP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	44.33 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%	+/- 10		+/- 0.2	+/- 10
Last 5	10:12:05	1500.02	23.11	4.47	315.91	14.80	44.32	0.51	145.23
Last 5	10:17:05	1800.02	23.08	4.46	316.83	10.40	44.32	0.50	144.61
Last 5	10:22:05	2100.02	23.11	4.46	319.58	7.55	44.32	0.50	144.16
Last 5	10:27:05	2400.02	23.15	4.46	322.51	5.96	44.32	0.51	143.84
Last 5	10:32:05	2700.02	23.16	4.46	323.00	4.62	44.32	0.50	143.20
Variance 0			0.03	-0.00	2.75			0.00	-0.45
Variance 1			0.04	0.00	2.93			0.01	-0.32
Variance 2			0.00	-0.00	0.49			-0.01	-0.64

Notes

Sample@1033, Sunny 78

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 09:26:39

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	PP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	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	24.06 in
Depth to Water	12.88 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	09:04:56	1200.02	22.22	4.13	1222.32	0.55	14.95	0.09	179.09
Last 5	09:09:56	1500.02	22.26	4.13	1214.43	0.48	14.95	0.10	154.95
Last 5	09:14:56	1800.02	22.30	4.13	1213.20	0.52	14.95	0.10	147.29
Last 5	09:19:56	2100.02	22.30	4.13	1203.61	0.56	14.95	0.11	142.15
Last 5	09:24:56	2400.02	22.28	4.14	1202.51	0.51	14.95	0.12	137.59
Variance 0			0.05	0.00	-1.22			0.01	-7.66
Variance 1			-0.00	-0.00	-9.60			0.00	-5.14
Variance 2			-0.02	0.00	-1.10			0.01	-4.56

Notes

Sample@0926, Sunny 73

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-04 08:24:47

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	PP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-205	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	0.02 in
Depth to Water	15.8 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	08:08:41	300.02	22.76	5.60	179.67	0.93	15.82	4.12	131.15
Last 5	08:13:41	600.02	22.71	5.66	188.43	0.39	15.82	3.91	129.12
Last 5	08:18:41	900.02	22.62	5.67	188.66	0.45	15.82	3.86	128.43
Last 5	08:23:41	1200.02	22.72	5.66	186.59	0.57	15.82	3.92	130.59
Last 5 Variance 0			-0.05	0.06	8.76			-0.21	-2.03
Variance 1			-0.09	0.01	0.23			-0.05	-0.69
Variance 2			0.10	-0.01	-2.07			0.06	2.16

Notes

Sample@0824, Sunny 67

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-03 13:09:47

Project Information:		Pump Information:	
Operator Name	Brett	Pump Model/Type	PP
Company Name	Surles	Tubing Type	PE
Project Name	Gypsum	Tubing Diameter	.17 in
Site Name	Plant Crist CCR GYP	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	25.39 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:57:49	300.02	23.87	4.06	9610.11	8.23	25.45	0.10	141.16
Last 5	13:02:49	600.02	23.80	4.08	9642.81	3.02	25.45	0.08	146.77
Last 5	13:07:49	900.02	23.78	4.11	9635.55	2.98	25.45	0.06	149.54
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.07	0.02	32.69			-0.02	5.61
Variance 2			-0.02	0.03	-7.25			-0.01	2.77

Notes

Sample@1309, DUP -02@1209 Sunny 86

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-03 08:10:35

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.16 in
Site Name	Crist Plant CCR-LF-2	Tubing Length	80 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	73 ft

Well Information:		Pumping Information:	
Well ID	MW-300	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5363007 L
Well Total Depth	78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.14 in
Depth to Water	56.49 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%	+/- 10		+/- 0.2	+/- 10
Last 5	07:49:20	2400.03	20.16	4.40	46.31	2.18	56.63	5.44	195.49
Last 5	07:54:20	2700.03	20.16	4.43	46.31	1.35	56.63	5.41	188.09
Last 5	07:59:20	3000.03	20.21	4.43	46.16	1.19	56.63	5.42	183.33
Last 5	08:04:20	3300.02	20.21	4.44	46.16	1.13	56.63	5.41	178.02
Last 5	08:09:20	3600.02	20.22	4.44	46.11	1.01	56.63	5.40	174.70
Variance 0			0.05	0.00	-0.14			0.01	-4.76
Variance 1			-0.00	0.02	-0.01			-0.01	-5.30
Variance 2			0.01	-0.00	-0.05			-0.01	-3.32

Notes

Sample @0810, partly cloudy 73

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-03 11:37:30

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.16 in
Site Name	Crist Plant CCR-LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4769943 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	35.33 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	11:16:24	2100.02	24.23	6.76	515.21	1.31	35.33	3.75	108.90
Last 5	11:21:24	2400.02	24.23	6.68	540.56	1.33	35.33	3.71	106.95
Last 5	11:26:24	2700.02	24.16	6.60	560.89	1.47	35.33	3.69	104.47
Last 5	11:31:24	3000.02	24.32	6.53	577.96	1.55	35.33	3.67	102.91
Last 5	11:36:25	3301.02	24.23	6.48	586.85	1.49	35.33	3.65	101.56
Variance 0			-0.08	-0.07	20.32			-0.03	-2.48
Variance 1			0.17	-0.07	17.08			-0.01	-1.56
Variance 2			-0.09	-0.06	8.89			-0.02	-1.36

Notes

Sample@1136, FB-01@1045 Sunny 78

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-03 10:19:28

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.16 in
Site Name	Crist Plant CCR-LF-2	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4374567 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	33.83 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	09:58:40	1800.02	26.90	6.35	1154.87	4.63	33.83	0.21	163.74
Last 5	10:03:40	2100.02	26.89	6.36	1153.40	3.86	33.83	0.21	169.74
Last 5	10:08:40	2400.02	26.87	6.36	1150.32	3.31	33.83	0.20	175.47
Last 5	10:13:40	2700.02	26.85	6.36	1148.28	2.77	33.83	0.19	180.31
Last 5	10:18:40	3000.02	26.76	6.36	1146.41	2.61	33.83	0.18	182.10
Variance 0			-0.02	-0.00	-3.08			-0.01	5.73
Variance 1			-0.03	-0.00	-2.04			-0.00	4.84
Variance 2			-0.09	0.00	-1.87			-0.01	1.79

Notes

Sample@1019, Sunny 75

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-03 09:04:39

roject Information:		Pump Information:	
perator Name	Brett Surles	Pump Model/Type	QED
ompany Name	RDH	Tubing Type	PE
roject Name	LF-2	Tubing Diameter	.16 in
ite Name	Crist Plant CCR-LF-2	Tubing Length	75 ft
atitude	0° 0' 0"		
ongitude	0° 0' 0"		
onde SN	383005		
urbidity Make/Model	HACH	Pump placement from TOC	68 ft

/ell Information:		Pumping Information:	
/ell ID	BSS ~~MW-304~~ MW-305 10/9/17	Final Pumping Rate	400 mL/min
/ell diameter	2 in	Total System Volume	0.5165319 L
/ell Total Depth	73 ft	Calculated Sample Rate	300 sec
creen Length	10 ft	Stabilization Drawdown	0.08 in
epth to Water	48.51 ft	Total Volume Pumped	12 L

ow-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
tabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
ast 5	08:43:27	600.03	22.70	4.62	39.09	3.07	48.59	6.74	179.22
ast 5	08:48:27	900.03	22.75	4.61	39.63	2.90	48.59	6.85	171.63
ast 5	08:53:27	1200.02	22.77	4.62	39.88	2.67	48.59	6.85	165.43
ast 5	08:58:27	1500.02	22.90	4.63	40.00	2.51	48.59	6.87	160.51
ast 5	09:03:27	1800.02	22.93	4.64	40.09	2.19	48.59	6.84	157.02
ariance 0			0.02	0.00	0.25			-0.00	-6.20
ariance 1			0.13	0.01	0.12			0.02	-4.92
ariance 2			0.03	0.01	0.09			-0.03	-3.49

otes

Sample@0904, Sunny 75

rab Samples

Product Name: Low-Flow System

Date: 2017-10-02 12:42:53

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Detection	Tubing Diameter	.17 in
Site Name	Plant Crist CCR	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.15 in
Depth to Water	55.06 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	12:21:35	300.06	21.97	4.89	36.91	3.41	55.21	8.12	181.91
Last 5	12:26:35	600.02	21.81	4.84	36.74	3.74	55.21	8.10	180.36
Last 5	12:31:35	900.02	21.85	4.85	36.58	3.18	55.21	8.11	175.22
Last 5	12:36:35	1200.02	21.77	4.87	36.59	2.54	55.21	8.06	169.00
Last 5	12:41:35	1500.02	21.63	4.88	36.28	2.33	55.21	8.06	163.90
Variance 0			0.04	0.01	-0.15			0.00	-5.14
Variance 1			-0.08	0.02	0.01			-0.04	-6.22
Variance 2			-0.13	0.01	-0.31			-0.01	-5.10

Notes

Sample@1242, DUP-01 @1250 , Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-02 11:38:47

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Detection	Tubing Diameter	.17 in
Site Name	Plant Crist CCR	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.53 in
Depth to Water	89.83 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	11:17:46	1800.02	23.29	5.64	42.94	2.44	90.36	0.21	54.01
Last 5	11:22:46	2100.02	23.37	5.65	43.04	2.48	90.36	0.20	55.50
Last 5	11:27:46	2400.02	23.15	5.62	42.83	2.08	90.36	0.19	55.73
Last 5	11:32:46	2700.02	23.02	5.64	42.50	1.97	90.36	0.18	52.79
Last 5	11:37:46	3000.03	23.02	5.63	42.11	1.73	90.36	0.16	51.03
Variance 0			-0.21	-0.03	-0.21			-0.01	0.24
Variance 1			-0.14	0.02	-0.32			-0.01	-2.94
Variance 2			0.00	-0.01	-0.39			-0.01	-1.76

Notes

Sample@1138, Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-03 12:21:55

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.16 in
Site Name	Crist Plant CCR-LF-2	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	HACH	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4769943 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	33.42 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	12:05:36	300.03	24.17	5.50	538.14	0.78	33.42	4.97	122.27
Last 5	12:10:36	600.02	24.06	5.44	579.35	0.42	33.42	4.55	119.29
Last 5	12:15:36	900.02	24.10	5.41	586.94	0.49	33.42	4.48	117.66
Last 5	12:20:36	1200.03	24.05	5.47	586.43	0.44	33.42	4.46	114.15
Last 5									
Variance 0			-0.11	-0.06	41.21			-0.43	-2.98
Variance 1			0.04	-0.03	7.59			-0.07	-1.63
Variance 2			-0.04	0.06	-0.51			-0.02	-3.51

Notes

Sample@1221, EB-01@1230, Sunny 81

Grab Samples

LABORATORY ANALYTICAL

INITIAL DETECTION EVENT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-144144-1
TestAmerica SDG: Plant Crist Background App III
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
10/26/2017 5:22:49 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 14
Chronicle 15
QC Association 17
QC Sample Results 20
Chain of Custody 25
Receipt Checklists 26
Certification Summary 27

Job ID: 400-144144-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-144144-1

General Chemistry
Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 370894 was outside control limits: (400-144121-D-1 DU). The associated Laboratory Control Sample (LCS) met acceptance criteria.

Method(s) SM 4500 Cl- E: The method blank for analytical batch 371354 contained Chloride below 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-100 — Lab Sample ID: 400-144144-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.78		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	5.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.64				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-144144-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.47		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	6.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-144144-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.023	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	6.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.0	V	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.4	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.54				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-144144-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.62		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	16		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.5	V	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.88				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-144144-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.83		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.8	V	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.7	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.63				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-144144-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.60		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.1	V	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-01 (Continued)

Lab Sample ID: 400-144144-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

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

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 Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144144-1	MW-100	Water	10/02/17 10:09	10/04/17 09:10
400-144144-2	MW-107	Water	10/02/17 09:09	10/04/17 09:10
400-144144-3	MW-108	Water	10/02/17 07:45	10/04/17 09:10
400-144144-4	MW-306	Water	10/02/17 12:42	10/04/17 09:10
400-144144-5	MW-307	Water	10/02/17 11:38	10/04/17 09:10
400-144144-6	DUP-01	Water	10/02/17 12:50	10/04/17 09:10

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-100
Date Collected: 10/02/17 10:09
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 15:41	5
Calcium	**0.78**		0.25	0.13	mg/L		10/05/17 09:08	10/05/17 15:41	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			10/05/17 13:13	1
Chloride	**5.5**		2.0	0.60	mg/L			10/07/17 13:14	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:12	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:21	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.64**				SU			10/02/17 10:09	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-107
Date Collected: 10/02/17 09:09
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 15:45	5
Calcium	**0.47**		0.25	0.13	mg/L		10/05/17 09:08	10/05/17 15:45	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			10/05/17 13:13	1
Chloride	**6.1**		2.0	0.60	mg/L			10/07/17 13:16	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:15	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.63**				SU			10/02/17 09:09	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-108
Date Collected: 10/02/17 07:45
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.023	I	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 15:50	5
Calcium	1.2		0.25	0.13	mg/L		10/05/17 09:08	10/05/17 15:50	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6.0		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	6.0	V	2.0	0.60	mg/L			10/10/17 15:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:18	1
Sulfate	3.4	I	5.0	1.4	mg/L			10/12/17 11:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.54				SU			10/02/17 07:45	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-306
Date Collected: 10/02/17 12:42
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 15:54	5
Calcium	**0.62**		0.25	0.13	mg/L		10/05/17 09:08	10/05/17 15:54	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**16**		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	**5.5**	**V**	2.0	0.60	mg/L			10/10/17 15:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:20	1
Sulfate	**1.5**	**I**	5.0	1.4	mg/L			10/12/17 11:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.88**				SU			10/02/17 12:42	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-307
Date Collected: 10/02/17 11:38
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 15:59	5
Calcium	**0.83**		0.25	0.13	mg/L		10/05/17 09:08	10/05/17 15:59	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	**4.8**	**V**	2.0	0.60	mg/L			10/10/17 15:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:23	1
Sulfate	**1.7**	**I**	5.0	1.4	mg/L			10/12/17 11:18	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.63**				SU			10/02/17 11:38	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: DUP-01
Date Collected: 10/02/17 12:50
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 16:03	5
Calcium	**0.60**		0.25	0.13	mg/L		10/05/17 09:08	10/05/17 16:03	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14**		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	**5.1**	**V**	2.0	0.60	mg/L			10/10/17 15:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:25	1
Sulfate	**1.5**	**I**	5.0	1.4	mg/L			10/12/17 11:18	1

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.

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 Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-100
Date Collected: 10/02/17 10:09
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370722	10/05/17 09:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 15:41	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:14	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:21	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/02/17 10:09	BWS	TAL PEN

Client Sample ID: MW-107
Date Collected: 10/02/17 09:09
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370722	10/05/17 09:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 15:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:15	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:27	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/02/17 09:09	BWS	TAL PEN

Client Sample ID: MW-108
Date Collected: 10/02/17 07:45
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370722	10/05/17 09:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 15:50	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371354	10/10/17 15:41	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:18	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371626	10/12/17 11:14	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/02/17 07:45	BWS	TAL PEN

Client Sample ID: MW-306
Date Collected: 10/02/17 12:42
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370722	10/05/17 09:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 15:54	DRE	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Client Sample ID: MW-306

Date Collected: 10/02/17 12:42
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371354	10/10/17 15:41	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:20	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371626	10/12/17 11:14	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/02/17 12:42	BWS	TAL PEN

Client Sample ID: MW-307

Date Collected: 10/02/17 11:38
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370722	10/05/17 09:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 15:59	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371354	10/10/17 15:41	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371626	10/12/17 11:18	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/02/17 11:38	BWS	TAL PEN

Client Sample ID: DUP-01

Date Collected: 10/02/17 12:50
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144144-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370722	10/05/17 09:08	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 16:03	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371354	10/10/17 15:41	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371626	10/12/17 11:18	JLB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 370722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total Recoverable	Water	3005A	
400-144144-2	MW-107	Total Recoverable	Water	3005A	
400-144144-3	MW-108	Total Recoverable	Water	3005A	
400-144144-4	MW-306	Total Recoverable	Water	3005A	
400-144144-5	MW-307	Total Recoverable	Water	3005A	
400-144144-6	DUP-01	Total Recoverable	Water	3005A	
MB 400-370722/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-370722/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144045-L-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144045-L-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 370885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total Recoverable	Water	6020	370722
400-144144-2	MW-107	Total Recoverable	Water	6020	370722
400-144144-3	MW-108	Total Recoverable	Water	6020	370722
400-144144-4	MW-306	Total Recoverable	Water	6020	370722
400-144144-5	MW-307	Total Recoverable	Water	6020	370722
400-144144-6	DUP-01	Total Recoverable	Water	6020	370722
MB 400-370722/1-A ^5	Method Blank	Total Recoverable	Water	6020	370722
LCS 400-370722/2-A	Lab Control Sample	Total Recoverable	Water	6020	370722
400-144045-L-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	370722
400-144045-L-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	370722

General Chemistry

Analysis Batch: 370778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total/NA	Water	SM 2540C	
400-144144-2	MW-107	Total/NA	Water	SM 2540C	
400-144144-3	MW-108	Total/NA	Water	SM 2540C	
400-144144-4	MW-306	Total/NA	Water	SM 2540C	
400-144144-5	MW-307	Total/NA	Water	SM 2540C	
400-144144-6	DUP-01	Total/NA	Water	SM 2540C	
MB 400-370778/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-370778/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144144-1 DU	MW-100	Total/NA	Water	SM 2540C	

Analysis Batch: 370894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total/NA	Water	SM 4500 F C	
400-144144-2	MW-107	Total/NA	Water	SM 4500 F C	
400-144144-3	MW-108	Total/NA	Water	SM 4500 F C	
400-144144-4	MW-306	Total/NA	Water	SM 4500 F C	
400-144144-5	MW-307	Total/NA	Water	SM 4500 F C	
400-144144-6	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-370894/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370894/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-144028-C-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-144028-C-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 370894 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144121-D-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 371026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-144144-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
MB 400-371026/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-371026/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-371026/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-144144-1 MS	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-144144-1 MSD	MW-100	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 371034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-144144-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
MB 400-371034/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-371034/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-371034/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-144144-1 MS	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-144144-1 MSD	MW-100	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 371354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-144144-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-144144-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-144144-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-371354/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-371354/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-371354/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-144369-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-144369-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 371626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-144144-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-144144-5	MW-307	Total/NA	Water	SM 4500 SO4 E	
400-144144-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-371626/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-371626/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-371626/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-144144-3 MS	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-144144-3 MSD	MW-108	Total/NA	Water	SM 4500 SO4 E	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Field Service / Mobile Lab

Analysis Batch: 373090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144144-1	MW-100	Total/NA	Water	Field Sampling	
400-144144-2	MW-107	Total/NA	Water	Field Sampling	
400-144144-3	MW-108	Total/NA	Water	Field Sampling	
400-144144-4	MW-306	Total/NA	Water	Field Sampling	
400-144144-5	MW-307	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-370722/1-A ^5
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370722

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:08	10/05/17 14:22	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:08	10/05/17 14:22	5

Lab Sample ID: LCS 400-370722/2-A
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.103		mg/L		103	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120

Lab Sample ID: 400-144045-L-1-B MS ^5
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 370722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.021	U	0.100	0.111		mg/L		111	75 - 125
Calcium	0.54		5.00	5.58		mg/L		101	75 - 125

Lab Sample ID: 400-144045-L-1-C MSD ^5
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.021	U	0.100	0.108		mg/L		108	75 - 125	3	20
Calcium	0.54		5.00	5.58		mg/L		101	75 - 125	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-370778/1
Matrix: Water
Analysis Batch: 370778

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			10/05/17 13:13	1

Lab Sample ID: LCS 400-370778/2
Matrix: Water
Analysis Batch: 370778

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: 400-144144-1 DU
Matrix: Water
Analysis Batch: 370778

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3.4	U	3.4	U	mg/L		NC	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-371034/6
Matrix: Water
Analysis Batch: 371034

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			10/07/17 13:13	1

Lab Sample ID: LCS 400-371034/7
Matrix: Water
Analysis Batch: 371034

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	30.5		mg/L		102	90 - 110

Lab Sample ID: MRL 400-371034/3
Matrix: Water
Analysis Batch: 371034

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	2.29		mg/L		115	50 - 150

Lab Sample ID: 400-144144-1 MS
Matrix: Water
Analysis Batch: 371034

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.5		10.0	15.0		mg/L		95	73 - 120

Lab Sample ID: 400-144144-1 MSD
Matrix: Water
Analysis Batch: 371034

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.5		10.0	15.0		mg/L		95	73 - 120	0	8

Lab Sample ID: MB 400-371354/6
Matrix: Water
Analysis Batch: 371354

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.745	I	2.0	0.60	mg/L			10/10/17 15:39	1

Lab Sample ID: LCS 400-371354/7
Matrix: Water
Analysis Batch: 371354

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	32.3		mg/L		108	90 - 110

Lab Sample ID: MRL 400-371354/3
Matrix: Water
Analysis Batch: 371354

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	2.16		mg/L		108	50 - 150

Lab Sample ID: 400-144369-D-1 MS
Matrix: Water
Analysis Batch: 371354

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	3.9	V	10.0	14.7		mg/L		108	73 - 120		

Lab Sample ID: 400-144369-D-1 MSD
Matrix: Water
Analysis Batch: 371354

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	3.9	V	10.0	15.0		mg/L		111	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-370894/3
Matrix: Water
Analysis Batch: 370894

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			10/06/17 08:55	1

Lab Sample ID: LCS 400-370894/4
Matrix: Water
Analysis Batch: 370894

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	3.98		mg/L		100	90 - 110		

Lab Sample ID: 400-144028-C-10 MS
Matrix: Water
Analysis Batch: 370894

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	1.04		mg/L		104	75 - 125		

Lab Sample ID: 400-144028-C-10 MSD
Matrix: Water
Analysis Batch: 370894

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	1.06		mg/L		106	75 - 125	2	4

Lab Sample ID: 400-144121-D-1 DU
Matrix: Water
Analysis Batch: 370894

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.070	I		0.0600	I J3	mg/L				15	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-371026/6
Matrix: Water
Analysis Batch: 371026

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			10/07/17 10:21	1

Lab Sample ID: LCS 400-371026/7
Matrix: Water
Analysis Batch: 371026

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	14.9		mg/L		100	90 - 110

Lab Sample ID: MRL 400-371026/3
Matrix: Water
Analysis Batch: 371026

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	4.83	I	mg/L		97	50 - 150

Lab Sample ID: 400-144144-1 MS
Matrix: Water
Analysis Batch: 371026

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	U	10.0	9.85		mg/L		99	77 - 128

Lab Sample ID: 400-144144-1 MSD
Matrix: Water
Analysis Batch: 371026

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	10.0		mg/L		100	77 - 128	2	5

Lab Sample ID: MB 400-371626/6
Matrix: Water
Analysis Batch: 371626

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			10/12/17 11:14	1

Lab Sample ID: LCS 400-371626/7
Matrix: Water
Analysis Batch: 371626

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	14.7		mg/L		98	90 - 110

Lab Sample ID: MRL 400-371626/3
Matrix: Water
Analysis Batch: 371626

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	5.24		mg/L		105	50 - 150

QC Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

Lab Sample ID: 400-144144-3 MS
Matrix: Water
Analysis Batch: 371626

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	3.4	I	10.0	12.3		mg/L		89	77 - 128		

Lab Sample ID: 400-144144-3 MSD
Matrix: Water
Analysis Batch: 371626

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	3.4	I	10.0	12.4		mg/L		90	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 Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-68493-27804.1
Client Contact: Kristi Mitchell	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): STANDARD 10 DAY			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist Background App III	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-144144 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)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	FieldSampling - Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
MW-100	10/2/17	1009	G	Water			X	X	X		
MW-107	10/2/17	0909	G	Water							
MW-108	10/2/17	0745	G	Water							
MW-306	10/2/17	1242	G	Water							
MW-307	10/2/17	1138	G	Water			X	X	X		
DUP-01	10/2/17	1250	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: [signature]	Date/Time: 10-3-17 0910	Company: RDH ENV.	Received by: [signature]	Date/Time: 10/4/17 0910	Company: [signature]
Relinquished by:	Date/Time: RDH	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: 3.0 IR-7 RK

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-144144-1
SDG Number: Plant Crist Background App III

Login Number: 144144
List Number: 1
Creator: Edwards, Robin S

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	3.0°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 Plant Crist

TestAmerica Job ID: 400-144144-1
SDG: Plant Crist Background App III

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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-144276-1
TestAmerica SDG: Plant Crist Landfill 1 App III
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/26/2017 5:56:07 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 20
Chronicle 21
QC Association 25
QC Sample Results 28
Chain of Custody 32
Receipt Checklists 34
Certification Summary 35

Job ID: 400-144276-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-144276-1

Metals
Method(s) 6020: The post digestion spike % recovery for Calcium associated with batch 371575 was outside of control limits.

Method(s) 6020: Due to the high concentration of Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 371311 and analytical batch 371575 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-144276-4), MW-110 (400-144276-8) and (400-144299-B-21-A ^1). 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 373467 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-104 (400-144276-4) and MW-110 (400-144276-8). 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-103 (400-144276-3), MW-104 (400-144276-4) and MW-110 (400-144276-8). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-101 — Lab Sample ID: 400-144276-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.39		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	5.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-102 — Lab Sample ID: 400-144276-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.56		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.56				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-103 — Lab Sample ID: 400-144276-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.37		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	10		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	39		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.07				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-144276-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	55		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - DL	12		1.0	0.42	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	980		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	120		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.22		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	500		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	3.79				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-144276-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.32		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	58		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	33		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.07				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-106 — Lab Sample ID: 400-144276-6

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-106 (Continued) — Lab Sample ID: 400-144276-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.39		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	4.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.77				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-144276-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.047	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	5.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	9.8		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.52				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-144276-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	15		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - DL	2.3		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	360		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	62		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	140		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.73				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-04 — Lab Sample ID: 400-144276-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.38		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: FB-03 — Lab Sample ID: 400-144276-10

No Detections.

Client Sample ID: EB-03 — Lab Sample ID: 400-144276-11

No Detections.

Client Sample ID: DUP-05 — Lab Sample ID: 400-144276-12

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.58		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

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

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 Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144276-1	MW-101	Water	10/05/17 07:15	10/06/17 09:20
400-144276-2	MW-102	Water	10/06/17 06:34	10/06/17 09:20
400-144276-3	MW-103	Water	10/06/17 08:39	10/06/17 09:20
400-144276-4	MW-104	Water	10/05/17 10:11	10/06/17 09:20
400-144276-5	MW-105	Water	10/05/17 09:02	10/06/17 09:20
400-144276-6	MW-106	Water	10/05/17 08:13	10/06/17 09:20
400-144276-7	MW-109	Water	10/05/17 11:30	10/06/17 09:20
400-144276-8	MW-110	Water	10/06/17 07:28	10/06/17 09:20
400-144276-9	DUP-04	Water	10/05/17 06:15	10/06/17 09:20
400-144276-10	FB-03	Water	10/06/17 07:10	10/06/17 09:20
400-144276-11	EB-03	Water	10/06/17 08:45	10/06/17 09:20
400-144276-12	DUP-05	Water	10/06/17 05:34	10/06/17 09:20

Client Sample ID: MW-101
Date Collected: 10/05/17 07:15
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:10	5
Calcium	**0.39**		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:10	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			10/11/17 12:13	1
Chloride	**5.6**		2.0	0.60	mg/L			10/07/17 13:16	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:08	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.63**				SU			10/05/17 07:15	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-102
Date Collected: 10/06/17 06:34
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:15	5
Calcium	**0.56**		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:15	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**22**		5.0	3.4	mg/L			10/12/17 13:19	1
Chloride	**6.0**		2.0	0.60	mg/L			10/07/17 13:16	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:10	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.56**				SU			10/06/17 06:34	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-103
Date Collected: 10/06/17 08:39
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.37		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:19	5
Calcium	4.3		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:19	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		5.0	3.4	mg/L			10/12/17 13:19	1
Chloride	10		2.0	0.60	mg/L			10/07/17 13:16	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:14	1
Sulfate	39		25	7.0	mg/L			10/07/17 10:48	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.07				SU			10/06/17 08:39	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-104
Date Collected: 10/05/17 10:11
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	55		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 19:36	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	12		1.0	0.42	mg/L		10/10/17 13:05	10/11/17 19:45	100

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	980		5.0	3.4	mg/L			10/11/17 12:13	1
Chloride	120		10	3.0	mg/L			10/07/17 13:47	5
Fluoride	0.22		0.10	0.032	mg/L			10/26/17 15:17	1
Sulfate	500		100	28	mg/L			10/07/17 10:51	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	3.79				SU			10/05/17 10:11	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-105
Date Collected: 10/05/17 09:02
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.32		0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:24	5
Calcium	58		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:24	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	240		5.0	3.4	mg/L			10/11/17 12:13	1
Chloride	33		2.0	0.60	mg/L			10/07/17 13:17	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:19	1
Sulfate	7.7		5.0	1.4	mg/L			10/07/17 10:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.07				SU			10/05/17 09:02	1

Client Sample ID: MW-106

Date Collected: 10/05/17 08:13
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-6

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:28	5
Calcium	**0.39**		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:28	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			10/11/17 12:13	1
Chloride	**4.5**		2.0	0.60	mg/L			10/07/17 13:17	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:21	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.77**				SU			10/05/17 08:13	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-109
Date Collected: 10/05/17 11:30
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.047**	**I**	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:33	5
Calcium	**3.7**		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:33	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			10/11/17 12:13	1
Chloride	**5.8**		2.0	0.60	mg/L			10/07/17 13:23	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:25	1
Sulfate	**9.8**		5.0	1.4	mg/L			10/07/17 10:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.52**				SU			10/05/17 11:30	1

Client Sample ID: MW-110
Date Collected: 10/06/17 07:28
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	15		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 19:22	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.3		0.25	0.11	mg/L		10/10/17 13:05	10/11/17 19:31	25

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	360		5.0	3.4	mg/L			10/12/17 13:19	1
Chloride	62		10	3.0	mg/L			10/07/17 13:47	5
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:33	1
Sulfate	140		25	7.0	mg/L			10/07/17 10:51	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.73				SU			10/06/17 07:28	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: DUP-04
Date Collected: 10/05/17 06:15
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-9
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:46	5
Calcium	**0.38**		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:46	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			10/11/17 12:13	1
Chloride	**5.3**		2.0	0.60	mg/L			10/07/17 13:23	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:37	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:31	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: FB-03
Date Collected: 10/06/17 07:10
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-10
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:37	5
Calcium	0.13	U	0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:37	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			10/12/17 13:19	1
Chloride	0.60	U	2.0	0.60	mg/L			10/07/17 13:23	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:39	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:31	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: EB-03
Date Collected: 10/06/17 08:45
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-11
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 18:42	5
Calcium	0.13	U	0.25	0.13	mg/L		10/10/17 13:05	10/11/17 18:42	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			10/12/17 13:19	1
Chloride	0.60	U	2.0	0.60	mg/L			10/07/17 13:23	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:43	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:31	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: DUP-05
Date Collected: 10/06/17 05:34
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-12
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 19:13	5
Calcium	**0.58**		0.25	0.13	mg/L		10/10/17 13:05	10/11/17 19:13	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			10/12/17 13:19	1
Chloride	**5.2**		2.0	0.60	mg/L			10/07/17 13:23	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/26/17 15:46	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/07/17 10:31	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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.

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 Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: MW-101
Date Collected: 10/05/17 07:15
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:10	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:08	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:27	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/05/17 07:15	BWS	TAL PEN

Client Sample ID: MW-102
Date Collected: 10/06/17 06:34
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:15	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:10	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:27	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/06/17 06:34	BWS	TAL PEN

Client Sample ID: MW-103
Date Collected: 10/06/17 08:39
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:19	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:16	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:14	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	371026	10/07/17 10:48	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/06/17 08:39	BWS	TAL PEN

Client Sample ID: MW-104
Date Collected: 10/05/17 10:11
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 19:36	DRE	TAL PEN

Client Sample ID: MW-104
Date Collected: 10/05/17 10:11
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	100	371575	10/11/17 19:45	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	371034	10/07/17 13:47	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	371026	10/07/17 10:51	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/05/17 10:11	BWS	TAL PEN

Client Sample ID: MW-105
Date Collected: 10/05/17 09:02
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:24	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:17	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:19	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:27	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/05/17 09:02	BWS	TAL PEN

Client Sample ID: MW-106
Date Collected: 10/05/17 08:13
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:28	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:17	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:27	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/05/17 08:13	BWS	TAL PEN

Client Sample ID: MW-109
Date Collected: 10/05/17 11:30
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:33	DRE	TAL PEN

Client Sample ID: MW-109
Date Collected: 10/05/17 11:30
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:23	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:31	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/05/17 11:30	BWS	TAL PEN

Client Sample ID: MW-110
Date Collected: 10/06/17 07:28
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 19:22	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020	DL	25	371575	10/11/17 19:31	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	371034	10/07/17 13:47	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:33	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	371026	10/07/17 10:51	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/06/17 07:28	BWS	TAL PEN

Client Sample ID: DUP-04
Date Collected: 10/05/17 06:15
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:46	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371415	10/11/17 12:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:23	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:31	JLB	TAL PEN

Client Sample ID: FB-03
Date Collected: 10/06/17 07:10
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:37	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

Client Sample ID: FB-03

Date Collected: 10/06/17 07:10
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:23	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:31	JLB	TAL PEN

Client Sample ID: EB-03

Date Collected: 10/06/17 08:45
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 18:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:23	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:31	JLB	TAL PEN

Client Sample ID: DUP-05

Date Collected: 10/06/17 05:34
Date Received: 10/06/17 09:20

Lab Sample ID: 400-144276-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371311	10/10/17 13:05	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	371575	10/11/17 19:13	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	371572	10/12/17 13:19	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371034	10/07/17 13:23	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	373467	10/26/17 15:46	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371026	10/07/17 10:31	JLB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 371311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total Recoverable	Water	3005A	
400-144276-2	MW-102	Total Recoverable	Water	3005A	
400-144276-3	MW-103	Total Recoverable	Water	3005A	
400-144276-4 - DL	MW-104	Total Recoverable	Water	3005A	
400-144276-4	MW-104	Total Recoverable	Water	3005A	
400-144276-5	MW-105	Total Recoverable	Water	3005A	
400-144276-6	MW-106	Total Recoverable	Water	3005A	
400-144276-7	MW-109	Total Recoverable	Water	3005A	
400-144276-8	MW-110	Total Recoverable	Water	3005A	
400-144276-8 - DL	MW-110	Total Recoverable	Water	3005A	
400-144276-9	DUP-04	Total Recoverable	Water	3005A	
400-144276-10	FB-03	Total Recoverable	Water	3005A	
400-144276-11	EB-03	Total Recoverable	Water	3005A	
400-144276-12	DUP-05	Total Recoverable	Water	3005A	
MB 400-371311/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-371311/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144299-B-21-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-144299-B-21-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 371575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total Recoverable	Water	6020	371311
400-144276-2	MW-102	Total Recoverable	Water	6020	371311
400-144276-3	MW-103	Total Recoverable	Water	6020	371311
400-144276-4	MW-104	Total Recoverable	Water	6020	371311
400-144276-4 - DL	MW-104	Total Recoverable	Water	6020	371311
400-144276-5	MW-105	Total Recoverable	Water	6020	371311
400-144276-6	MW-106	Total Recoverable	Water	6020	371311
400-144276-7	MW-109	Total Recoverable	Water	6020	371311
400-144276-8	MW-110	Total Recoverable	Water	6020	371311
400-144276-8 - DL	MW-110	Total Recoverable	Water	6020	371311
400-144276-9	DUP-04	Total Recoverable	Water	6020	371311
400-144276-10	FB-03	Total Recoverable	Water	6020	371311
400-144276-11	EB-03	Total Recoverable	Water	6020	371311
400-144276-12	DUP-05	Total Recoverable	Water	6020	371311
MB 400-371311/1-A ^5	Method Blank	Total Recoverable	Water	6020	371311
LCS 400-371311/2-A	Lab Control Sample	Total Recoverable	Water	6020	371311
400-144299-B-21-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	371311
400-144299-B-21-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	371311

General Chemistry

Analysis Batch: 371026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-144276-2	MW-102	Total/NA	Water	SM 4500 SO4 E	
400-144276-3	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-144276-4	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-144276-5	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-144276-6	MW-106	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 371026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-7	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-144276-8	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-144276-9	DUP-04	Total/NA	Water	SM 4500 SO4 E	
400-144276-10	FB-03	Total/NA	Water	SM 4500 SO4 E	
400-144276-11	EB-03	Total/NA	Water	SM 4500 SO4 E	
400-144276-12	DUP-05	Total/NA	Water	SM 4500 SO4 E	
MB 400-371026/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-371026/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-371026/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-144144-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-144144-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 371034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-144276-2	MW-102	Total/NA	Water	SM 4500 Cl- E	
400-144276-3	MW-103	Total/NA	Water	SM 4500 Cl- E	
400-144276-4	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-144276-5	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-144276-6	MW-106	Total/NA	Water	SM 4500 Cl- E	
400-144276-7	MW-109	Total/NA	Water	SM 4500 Cl- E	
400-144276-8	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-144276-9	DUP-04	Total/NA	Water	SM 4500 Cl- E	
400-144276-10	FB-03	Total/NA	Water	SM 4500 Cl- E	
400-144276-11	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-144276-12	DUP-05	Total/NA	Water	SM 4500 Cl- E	
MB 400-371034/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-371034/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-371034/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-144144-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-144144-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-144240-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-144240-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 371415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total/NA	Water	SM 2540C	
400-144276-4	MW-104	Total/NA	Water	SM 2540C	
400-144276-5	MW-105	Total/NA	Water	SM 2540C	
400-144276-6	MW-106	Total/NA	Water	SM 2540C	
400-144276-7	MW-109	Total/NA	Water	SM 2540C	
400-144276-9	DUP-04	Total/NA	Water	SM 2540C	
MB 400-371415/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371415/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144276-5 DU	MW-105	Total/NA	Water	SM 2540C	

Analysis Batch: 371572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-2	MW-102	Total/NA	Water	SM 2540C	
400-144276-3	MW-103	Total/NA	Water	SM 2540C	
400-144276-8	MW-110	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 371572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-10	FB-03	Total/NA	Water	SM 2540C	
400-144276-11	EB-03	Total/NA	Water	SM 2540C	
400-144276-12	DUP-05	Total/NA	Water	SM 2540C	
MB 400-371572/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-371572/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144243-A-40 DU	Duplicate	Total/NA	Water	SM 2540C	
400-144299-A-9 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 373467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total/NA	Water	SM 4500 F C	
400-144276-2	MW-102	Total/NA	Water	SM 4500 F C	
400-144276-3	MW-103	Total/NA	Water	SM 4500 F C	
400-144276-4	MW-104	Total/NA	Water	SM 4500 F C	
400-144276-5	MW-105	Total/NA	Water	SM 4500 F C	
400-144276-6	MW-106	Total/NA	Water	SM 4500 F C	
400-144276-7	MW-109	Total/NA	Water	SM 4500 F C	
400-144276-8	MW-110	Total/NA	Water	SM 4500 F C	
400-144276-9	DUP-04	Total/NA	Water	SM 4500 F C	
400-144276-10	FB-03	Total/NA	Water	SM 4500 F C	
400-144276-11	EB-03	Total/NA	Water	SM 4500 F C	
400-144276-12	DUP-05	Total/NA	Water	SM 4500 F C	
MB 400-373467/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-373467/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-83271-C-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-83271-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-144276-8 DU	MW-110	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 373090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144276-1	MW-101	Total/NA	Water	Field Sampling	
400-144276-2	MW-102	Total/NA	Water	Field Sampling	
400-144276-3	MW-103	Total/NA	Water	Field Sampling	
400-144276-4	MW-104	Total/NA	Water	Field Sampling	
400-144276-5	MW-105	Total/NA	Water	Field Sampling	
400-144276-6	MW-106	Total/NA	Water	Field Sampling	
400-144276-7	MW-109	Total/NA	Water	Field Sampling	
400-144276-8	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-371311/1-A ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/10/17 13:05	10/11/17 16:26	5
Calcium	0.13	U	0.25	0.13	mg/L		10/10/17 13:05	10/11/17 16:26	5

Lab Sample ID: LCS 400-371311/2-A
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.100		mg/L		100	80 - 120
Calcium	5.00	5.19		mg/L		104	80 - 120

Lab Sample ID: 400-144299-B-21-B MS ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.47		0.100	0.574		mg/L		109	75 - 125
Calcium	130	L	5.00	130	L J3	mg/L		-2	75 - 125

Lab Sample ID: 400-144299-B-21-C MSD ^5
Matrix: Water
Analysis Batch: 371575

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 371311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.47		0.100	0.570		mg/L		105	75 - 125	1	20
Calcium	130	L	5.00	126	L J3	mg/L		-74	75 - 125	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-371415/1
Matrix: Water
Analysis Batch: 371415

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			10/11/17 12:13	1

Lab Sample ID: LCS 400-371415/2
Matrix: Water
Analysis Batch: 371415

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	274		mg/L		94	78 - 122

Lab Sample ID: 400-144276-5 DU
Matrix: Water
Analysis Batch: 371415

Client Sample ID: MW-105
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		240		mg/L		0	5

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-371572/1
Matrix: Water
Analysis Batch: 371572

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			10/12/17 13:19	1

Lab Sample ID: LCS 400-371572/2
Matrix: Water
Analysis Batch: 371572

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: 400-144243-A-40 DU
Matrix: Water
Analysis Batch: 371572

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		120		mg/L		0	5

Lab Sample ID: 400-144299-A-9 DU
Matrix: Water
Analysis Batch: 371572

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	160		156		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-371034/6
Matrix: Water
Analysis Batch: 371034

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			10/07/17 13:13	1

Lab Sample ID: LCS 400-371034/7
Matrix: Water
Analysis Batch: 371034

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	30.5		mg/L		102	90 - 110

Lab Sample ID: MRL 400-371034/3
Matrix: Water
Analysis Batch: 371034

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	2.29		mg/L		115	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-144144-B-1 MS
Matrix: Water
Analysis Batch: 371034

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	5.5		10.0	15.0		mg/L		95	73 - 120

Lab Sample ID: 400-144144-B-1 MSD
Matrix: Water
Analysis Batch: 371034

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	5.5		10.0	15.0		mg/L		95	73 - 120	0	8

Lab Sample ID: 400-144240-A-1 MS
Matrix: Water
Analysis Batch: 371034

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	4.7		10.0	14.1		mg/L		95	73 - 120

Lab Sample ID: 400-144240-A-1 MSD
Matrix: Water
Analysis Batch: 371034

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	4.7		10.0	13.9		mg/L		93	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-373467/3
Matrix: Water
Analysis Batch: 373467

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			10/26/17 14:49	1

Lab Sample ID: LCS 400-373467/4
Matrix: Water
Analysis Batch: 373467

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: 660-83271-C-3 MS
Matrix: Water
Analysis Batch: 373467

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	0.72		1.00	1.41	J3	mg/L		69	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 660-83271-C-3 MSD
Matrix: Water
Analysis Batch: 373467

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	0.72		1.00	1.44	J3	mg/L		72	75 - 125	2	4

Lab Sample ID: 400-144276-8 DU
Matrix: Water
Analysis Batch: 373467

Client Sample ID: MW-110
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 400-371026/6
Matrix: Water
Analysis Batch: 371026

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			10/07/17 10:21	1

Lab Sample ID: LCS 400-371026/7
Matrix: Water
Analysis Batch: 371026

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	14.9		mg/L		100	90 - 110

Lab Sample ID: MRL 400-371026/3
Matrix: Water
Analysis Batch: 371026

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	4.83	I	mg/L		97	50 - 150

Lab Sample ID: 400-144144-B-1 MS
Matrix: Water
Analysis Batch: 371026

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	1.4	U	10.0	9.85		mg/L		99	77 - 128

Lab Sample ID: 400-144144-B-1 MSD
Matrix: Water
Analysis Batch: 371026

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	1.4	U	10.0	10.0		mg/L		100	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: Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-68494-27805.1
Client Contact: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 3
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 #: Purchase Order not required
Email: krmitche@southernco.com	WO #:
Project Name: CCR Plant Crist LandFill 1 App III	Project #: 40005424
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:

400-144276 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)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	FieldSampling - Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
MW-101	10/5/17	0715	G	Water			X	X	X		
MW-102	10/6/17	0634		Water							
MW-103	10/6/17	0839		Water							
MW-104	10/5/17	1011		Water							
MW-105	10/5/17	0902		Water							
MW-106	10/5/17	0813		Water							
MW-109	10/5/17	1130		Water							
MW-110	10/6/17	0728		Water							
Dup-04	10/5/17	0615		W							
FB-03	10/6/17	0710		W							
EB-03	10/6/17	0845	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
1		10/6/17 0920	RDH		10/6/17 920	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.9C IR8TO 0.5C IR8TO

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 Sowles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-68494-27805.1
Client Contact: Kristi Mitchell	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 3 of 3
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist LandFill 1 App III	Project #: 40005424			
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:

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)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	FieldSampling - Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
MW-101 DUP-05	10/6/17	0534	G	Water			X	X	X		
MW-102				Water							
MW-103				Water							
MW-104				Water							
MW-105				Water							
MW-106				Water							
MW-109				Water							
MW-110				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		Date/Time:	Company
Relinquished by:	10/6/17 0920	RDH	Received by:	10/6/17 920	TA
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.9c IR8 TO 0.5C IR8 TO

Page 33 of 35

10/26/2017

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-144276-1
SDG Number: Plant Crist Landfill 1 App III

Login Number: 144276
List Number: 1
Creator: Hughes, Nicholas T

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	0.5°C, 0.9°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 Plant Crist

TestAmerica Job ID: 400-144276-1
SDG: Plant Crist Landfill 1 App III

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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-144167-1
TestAmerica SDG: Plant Crist Landfill 2 App III
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/30/2017 9:54:33 AM

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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 15
Chronicle 16
QC Association 19
QC Sample Results 22
Chain of Custody 27
Receipt Checklists 28
Certification Summary 29

Job ID: 400-144167-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-144167-1

Metals
Method(s) 6020: Due to the high concentration of Boron and Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 370727 and analytical batch 400-370885 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS), serial dilution (SD), and post digestion spike (PDS) meet acceptance criteria.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-144167-2) and MW-304 (400-144167-3). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 370894 was outside control limits: (400-144121-D-1 DU). The associated Laboratory Control Sample (LCS) met acceptance criteria.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 371840 were outside control limits. Sample matrix interference and/or spike dilution 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-303 (400-144167-2), MW-304 (400-144167-3) and MW-308 (400-144167-5). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-300 — Lab Sample ID: 400-144167-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.030	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.46		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.44				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-144167-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	2.9		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium - DL	43		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	310		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	38		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.25		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	130		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	6.48				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-144167-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.67		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium - DL	160		0.50	0.25	mg/L	10		6020	Total Recoverable
Total Dissolved Solids	760		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	21		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	440		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	6.36				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-144167-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.026	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.68		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.64				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-144167-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - RA	0.93		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium - RA	59		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	320		5.0	3.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-308 (Continued) — Lab Sample ID: 400-144167-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	0.60	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	180		75	21	mg/L	15		SM 4500 SO4 E	Total/NA
Field pH	5.47				SU	1		Field Sampling	Total/NA

Client Sample ID: EQ-01 — Lab Sample ID: 400-144167-6

No Detections.

Client Sample ID: FB-01 — Lab Sample ID: 400-144167-7

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

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

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 Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144167-1	MW-300	Water	10/03/17 08:10	10/04/17 09:10
400-144167-2	MW-303	Water	10/03/17 11:36	10/04/17 09:10
400-144167-3	MW-304	Water	10/03/17 10:19	10/04/17 09:10
400-144167-4	MW-305	Water	10/03/17 09:04	10/04/17 09:10
400-144167-5	MW-308	Water	10/03/17 12:21	10/04/17 09:10
400-144167-6	EQ-01	Water	10/03/17 12:30	10/04/17 09:10
400-144167-7	FB-01	Water	10/03/17 10:45	10/04/17 09:10

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-300
Date Collected: 10/03/17 08:10
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.030	I	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 18:23	5
Calcium	0.46		0.25	0.13	mg/L		10/05/17 09:14	10/05/17 18:23	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	8.9		2.0	0.60	mg/L			10/13/17 13:35	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/06/17 09:43	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/14/17 08:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.44				SU			10/03/17 08:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-303
Date Collected: 10/03/17 11:36
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.9		0.25	0.11	mg/L		10/05/17 09:14	10/05/17 18:50	25
Calcium	43		1.3	0.63	mg/L		10/05/17 09:14	10/05/17 18:50	25

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	310		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	38		2.0	0.60	mg/L			10/13/17 13:35	1
Fluoride	0.25		0.10	0.032	mg/L			10/06/17 09:45	1
Sulfate	130		25	7.0	mg/L			10/14/17 09:07	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.48				SU			10/03/17 11:36	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-304
Date Collected: 10/03/17 10:19
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.67		0.050	0.021	mg/L		10/05/17 09:14	10/05/17 18:55	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160		0.50	0.25	mg/L		10/05/17 09:14	10/06/17 11:52	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	760		5.0	3.4	mg/L			10/05/17 14:17	1
Chloride	21		2.0	0.60	mg/L			10/13/17 13:35	1
Fluoride	0.070	I	0.10	0.032	mg/L			10/12/17 13:17	1
Sulfate	440		100	28	mg/L			10/14/17 10:03	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.36				SU			10/03/17 10:19	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-305
Date Collected: 10/03/17 09:04
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.026	I	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 18:59	5
Calcium	0.68		0.25	0.13	mg/L		10/05/17 09:14	10/05/17 18:59	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		5.0	3.4	mg/L			10/05/17 14:17	1
Chloride	7.1		2.0	0.60	mg/L			10/13/17 13:35	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/12/17 13:20	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/14/17 08:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.64				SU			10/03/17 09:04	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-308
Date Collected: 10/03/17 12:21
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.93		0.050	0.021	mg/L		10/05/17 09:14	10/06/17 11:58	5
Calcium	59		0.25	0.13	mg/L		10/05/17 09:14	10/06/17 11:58	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	320		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	20		2.0	0.60	mg/L			10/13/17 13:38	1
Fluoride	0.13		0.10	0.032	mg/L			10/12/17 13:22	1
Sulfate	180		75	21	mg/L			10/14/17 09:07	15

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.47				SU			10/03/17 12:21	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: EQ-01
Date Collected: 10/03/17 12:30
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 16:53	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:14	10/05/17 16:53	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			10/05/17 13:13	1
Chloride	0.60	U	2.0	0.60	mg/L			10/13/17 13:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/12/17 13:24	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/14/17 08:17	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: FB-01
Date Collected: 10/03/17 10:45
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 16:57	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:14	10/05/17 16:57	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			10/05/17 13:13	1
Chloride	0.60	U	2.0	0.60	mg/L			10/13/17 13:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/12/17 13:27	1
Sulfate	1.4	U	5.0	1.4	mg/L			10/14/17 08:17	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
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 Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-300
Date Collected: 10/03/17 08:10
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 18:23	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371884	10/14/17 08:17	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/03/17 08:10	BWS	TAL PEN

Client Sample ID: MW-303
Date Collected: 10/03/17 11:36
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	370885	10/05/17 18:50	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	371884	10/14/17 09:07	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/03/17 11:36	BWS	TAL PEN

Client Sample ID: MW-304
Date Collected: 10/03/17 10:19
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 18:55	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	10	371110	10/06/17 11:52	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370780	10/05/17 14:17	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	371646	10/12/17 13:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	371884	10/14/17 10:03	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/03/17 10:19	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: MW-305
Date Collected: 10/03/17 09:04
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 18:59	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370780	10/05/17 14:17	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:35	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	371646	10/12/17 13:20	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371884	10/14/17 08:17	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/03/17 09:04	BWS	TAL PEN

Client Sample ID: MW-308
Date Collected: 10/03/17 12:21
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	RA		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	371110	10/06/17 11:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:38	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	371646	10/12/17 13:22	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	371884	10/14/17 09:07	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/03/17 12:21	BWS	TAL PEN

Client Sample ID: EQ-01
Date Collected: 10/03/17 12:30
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 16:53	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:38	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	371646	10/12/17 13:24	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371884	10/14/17 08:17	JLB	TAL PEN

Client Sample ID: FB-01
Date Collected: 10/03/17 10:45
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 16:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

Client Sample ID: FB-01

Date Collected: 10/03/17 10:45
Date Received: 10/04/17 09:10

Lab Sample ID: 400-144167-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	371840	10/13/17 13:38	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	371646	10/12/17 13:27	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371884	10/14/17 08:17	JLB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 370727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total Recoverable	Water	3005A	
400-144167-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-144167-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-144167-3	MW-304	Total Recoverable	Water	3005A	
400-144167-4	MW-305	Total Recoverable	Water	3005A	
400-144167-5 - RA	MW-308	Total Recoverable	Water	3005A	
400-144167-6	EQ-01	Total Recoverable	Water	3005A	
400-144167-7	FB-01	Total Recoverable	Water	3005A	
MB 400-370727/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-370727/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144160-C-1-B MS ^200	Matrix Spike	Total Recoverable	Water	3005A	
400-144160-C-1-C MSD ^20	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 370885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total Recoverable	Water	6020	370727
400-144167-2 - DL	MW-303	Total Recoverable	Water	6020	370727
400-144167-3	MW-304	Total Recoverable	Water	6020	370727
400-144167-4	MW-305	Total Recoverable	Water	6020	370727
400-144167-6	EQ-01	Total Recoverable	Water	6020	370727
400-144167-7	FB-01	Total Recoverable	Water	6020	370727
MB 400-370727/1-A ^5	Method Blank	Total Recoverable	Water	6020	370727
LCS 400-370727/2-A	Lab Control Sample	Total Recoverable	Water	6020	370727
400-144160-C-1-B MS ^200	Matrix Spike	Total Recoverable	Water	6020	370727
400-144160-C-1-C MSD ^20	Matrix Spike Duplicate	Total Recoverable	Water	6020	370727

Analysis Batch: 371110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-3 - DL	MW-304	Total Recoverable	Water	6020	370727
400-144167-5 - RA	MW-308	Total Recoverable	Water	6020	370727

General Chemistry

Analysis Batch: 370778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total/NA	Water	SM 2540C	
400-144167-2	MW-303	Total/NA	Water	SM 2540C	
400-144167-5	MW-308	Total/NA	Water	SM 2540C	
400-144167-6	EQ-01	Total/NA	Water	SM 2540C	
400-144167-7	FB-01	Total/NA	Water	SM 2540C	
MB 400-370778/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-370778/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144167-5 DU	MW-308	Total/NA	Water	SM 2540C	

Analysis Batch: 370780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-3	MW-304	Total/NA	Water	SM 2540C	
400-144167-4	MW-305	Total/NA	Water	SM 2540C	
MB 400-370780/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-370780/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 370780 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144142-D-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 370894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total/NA	Water	SM 4500 F C	
400-144167-2	MW-303	Total/NA	Water	SM 4500 F C	
MB 400-370894/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370894/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-144028-C-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-144028-C-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-144121-D-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 371646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-3	MW-304	Total/NA	Water	SM 4500 F C	
400-144167-4	MW-305	Total/NA	Water	SM 4500 F C	
400-144167-5	MW-308	Total/NA	Water	SM 4500 F C	
400-144167-6	EQ-01	Total/NA	Water	SM 4500 F C	
400-144167-7	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-371646/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-371646/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-144271-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-144271-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-144251-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 371840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-144167-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-144167-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-144167-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-144167-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-144167-6	EQ-01	Total/NA	Water	SM 4500 Cl- E	
400-144167-7	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-371840/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-371840/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-371840/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-144167-1 MS	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-144167-1 MSD	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-144271-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-144271-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 371884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-144167-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-144167-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-144167-4	MW-305	Total/NA	Water	SM 4500 SO4 E	
400-144167-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-144167-6	EQ-01	Total/NA	Water	SM 4500 SO4 E	
400-144167-7	FB-01	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 371884 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-371884/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-371884/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-371884/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-144167-1 MS	MW-300	Total/NA	Water	SM 4500 SO4 E	
400-144167-1 MSD	MW-300	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 373090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144167-1	MW-300	Total/NA	Water	Field Sampling	
400-144167-2	MW-303	Total/NA	Water	Field Sampling	
400-144167-3	MW-304	Total/NA	Water	Field Sampling	
400-144167-4	MW-305	Total/NA	Water	Field Sampling	
400-144167-5	MW-308	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-370727/1-A ^5
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 16:30	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:14	10/05/17 16:30	5

Lab Sample ID: LCS 400-370727/2-A
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.100		mg/L		100	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120

Method: 6020 - Metals (ICP/MS) - DL

Lab Sample ID: 400-144160-C-1-B MS ^200
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron - DL	18		0.100	18.8	J3	mg/L		366	75 - 125
Calcium - DL	490		5.00	500		mg/L		109	75 - 125

Lab Sample ID: 400-144160-C-1-C MSD ^200
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron - DL	18		0.100	19.3	J3	mg/L		841	75 - 125	2	20
Calcium - DL	490		5.00	496	J3	mg/L		40	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-370778/1
Matrix: Water
Analysis Batch: 370778

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			10/05/17 13:13	1

Lab Sample ID: LCS 400-370778/2
Matrix: Water
Analysis Batch: 370778

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: 400-144167-5 DU
Matrix: Water
Analysis Batch: 370778

Client Sample ID: MW-308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	320			314		mg/L				0.6	5

Lab Sample ID: MB 400-370780/1
Matrix: Water
Analysis Batch: 370780

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			10/05/17 14:17	1

Lab Sample ID: LCS 400-370780/2
Matrix: Water
Analysis Batch: 370780

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	274		mg/L		94	78 - 122		

Lab Sample ID: 400-144142-D-2 DU
Matrix: Water
Analysis Batch: 370780

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			124		mg/L				2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-371840/6
Matrix: Water
Analysis Batch: 371840

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			10/13/17 13:35	1

Lab Sample ID: LCS 400-371840/7
Matrix: Water
Analysis Batch: 371840

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	29.4		mg/L		98	90 - 110		

Lab Sample ID: MRL 400-371840/3
Matrix: Water
Analysis Batch: 371840

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	1.94	I	mg/L		97	50 - 150		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-144167-1 MS
Matrix: Water
Analysis Batch: 371840

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.9		10.0	18.8		mg/L		99	73 - 120

Lab Sample ID: 400-144167-1 MSD
Matrix: Water
Analysis Batch: 371840

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.9		10.0	18.7		mg/L		98	73 - 120	0	8

Lab Sample ID: 400-144271-A-1 MS
Matrix: Water
Analysis Batch: 371840

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	220		400	230	J3	mg/L		2	73 - 120

Lab Sample ID: 400-144271-A-1 MSD
Matrix: Water
Analysis Batch: 371840

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	220		400	229	J3	mg/L		2	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-370894/3
Matrix: Water
Analysis Batch: 370894

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			10/06/17 08:55	1

Lab Sample ID: LCS 400-370894/4
Matrix: Water
Analysis Batch: 370894

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	3.98		mg/L		100	90 - 110

Lab Sample ID: 400-144028-C-10 MS
Matrix: Water
Analysis Batch: 370894

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	1.04		mg/L		104	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-144028-C-10 MSD
Matrix: Water
Analysis Batch: 370894

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	1.06		mg/L		106	75 - 125	2	4

Lab Sample ID: 400-144121-D-1 DU
Matrix: Water
Analysis Batch: 370894

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.070	I	0.0600	I J3	mg/L		15	4

Lab Sample ID: MB 400-371646/3
Matrix: Water
Analysis Batch: 371646

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			10/12/17 12:47	1

Lab Sample ID: LCS 400-371646/4
Matrix: Water
Analysis Batch: 371646

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	3.98		mg/L		100	90 - 110

Lab Sample ID: 400-144251-A-3 DU
Matrix: Water
Analysis Batch: 371646

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.62		0.620		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-371884/6
Matrix: Water
Analysis Batch: 371884

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			10/14/17 07:57	1

Lab Sample ID: LCS 400-371884/7
Matrix: Water
Analysis Batch: 371884

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	14.8		mg/L		99	90 - 110

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-371884/3
Matrix: Water
Analysis Batch: 371884

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	5.13		mg/L		103	50 - 150		

Lab Sample ID: 400-144167-1 MS
Matrix: Water
Analysis Batch: 371884

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	10.2		mg/L		102	77 - 128		

Lab Sample ID: 400-144167-1 MSD
Matrix: Water
Analysis Batch: 371884

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	10.1		mg/L		101	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 Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-68495-27806.1
Client Contact: Kristi Mitchell	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): STANDARD 10 DAY			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist LandFill 2 App III	Project #: 40005424			
Site:	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:

400-144167 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)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	FieldSampling - Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
MW-300	10/3/17	0810	G	Water			X	X	X		
MW-303	10/3/17	1136	G	Water			X	X	X		
MW-304	10/3/17	1019	G	Water			X	X	X		
MW-305	10/3/17	0904	G	Water			X	X	X		
MW-308	10/3/17	1221	G	Water			X	X	X		
EQ-01	10/3/17	1230	G	W			X	X	X		
FB-01	10/3/17	1045	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
1		10-4-17 0910	FDH ENV.		10/4/17 910	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by: RE	Date/Time: 10-4-17 RE	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.0 IR-7

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-144167-1
SDG Number: Plant Crist Landfill 2 App III

Login Number: 144167
List Number: 1
Creator: Hughes, Nicholas T

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	2.0°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 Plant Crist

TestAmerica Job ID: 400-144167-1
SDG: Plant Crist Landfill 2 App III

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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-144160-1
TestAmerica SDG: Plant Crist Gypsum Storage Area App III
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
10/26/2017 5:23:13 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 7
Sample Summary 8
Client Sample Results 9
Definitions 20
Chronicle 21
QC Association 25
QC Sample Results 28
Chain of Custody 33
Receipt Checklists 34
Certification Summary 35

Job ID: 400-144160-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-144160-1

Metals
Method(s) 6020: Due to the high concentration of Boron and Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 370727 and analytical batch 370885 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS), serial dilution (SD), and post digestion spike (PDS) meet acceptance criteria.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-144160-1), MW-201 (400-144160-2), MW-204 (400-144160-5), MW-206 (400-144160-7) and DUP-02 (400-144160-8). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 370894 was outside control limits: (400-144121-D-1 DU). The associated Laboratory Control Sample (LCS) met acceptance criteria.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-144160-1), MW-201 (400-144160-2), MW-203 (400-144160-4), MW-204 (400-144160-5), MW-206 (400-144160-7), DUP-02 (400-144160-8), (400-144160-B-1 MS) and (400-144160-B-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 371339 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) 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-200 (400-144160-1), MW-201 (400-144160-2), MW-204 (400-144160-5), MW-206 (400-144160-7) and DUP-02 (400-144160-8). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: The method blank for analytical batch 371344 contained Chloride on the high end of 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) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 372422 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.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-200 — Lab Sample ID: 400-144160-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	18		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	490		10	5.0	mg/L	200		6020	Total Recoverable
Total Dissolved Solids	3400		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	910		40	12	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.080	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	250		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.89				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-144160-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	6.0		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	100		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	700		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	160		20	6.0	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.96		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	240		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-144160-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.087		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	17		2.0	0.60	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
Sulfate	8.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.47				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-144160-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - RA	0.97		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium - RA	24		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	17		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	82		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.46				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-144160-5

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-144160-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	5.9		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	74		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	710		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	70		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.31		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	350		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.14				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-144160-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.039	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	26		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	50		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	2.7	V	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.66				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-144160-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	52		5.0	2.1	mg/L	500		6020	Total Recoverable
Calcium - DL	1300		25	13	mg/L	500		6020	Total Recoverable
Total Dissolved Solids	7100		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	2300		100	30	mg/L	50		SM 4500 Cl- E	Total/NA
Fluoride	0.11		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	480		150	42	mg/L	30		SM 4500 SO4 E	Total/NA
Field pH	4.11				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-144160-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	41		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	1300		10	5.0	mg/L	200		6020	Total Recoverable
Total Dissolved Solids	6900		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	2300		100	30	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	480		150	42	mg/L	30		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-144160-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.8	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: EB-02 — Lab Sample ID: 400-144160-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1.7	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-144160-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - RA	0.099		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium - RA	4.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	66		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	17		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

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

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 Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-144160-1	MW-200	Water	10/04/17 07:38	10/04/17 13:50
400-144160-2	MW-201	Water	10/04/17 11:57	10/04/17 13:50
400-144160-3	MW-202	Water	10/04/17 12:58	10/04/17 13:50
400-144160-4	MW-203	Water	10/04/17 10:33	10/04/17 13:50
400-144160-5	MW-204	Water	10/04/17 09:26	10/04/17 13:50
400-144160-6	MW-205	Water	10/04/17 08:24	10/04/17 13:50
400-144160-7	MW-206	Water	10/03/17 13:09	10/04/17 13:50
400-144160-8	DUP-02	Water	10/03/17 12:09	10/04/17 13:50
400-144160-9	FB-02	Water	10/04/17 11:05	10/04/17 13:50
400-144160-10	EB-02	Water	10/04/17 12:05	10/04/17 13:50
400-144160-11	DUP-03	Water	10/04/17 11:58	10/04/17 13:50

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-200
Date Collected: 10/04/17 07:38
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	18		2.0	0.84	mg/L		10/05/17 09:14	10/05/17 17:02	200
Calcium	490		10	5.0	mg/L		10/05/17 09:14	10/05/17 17:02	200

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3400		25	17	mg/L			10/05/17 14:17	1
Chloride	910		40	12	mg/L			10/10/17 15:18	20
Fluoride	0.080	I	0.10	0.032	mg/L			10/18/17 13:44	1
Sulfate	250		100	28	mg/L			10/10/17 14:15	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.89				SU			10/04/17 07:38	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-201
Date Collected: 10/04/17 11:57
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	6.0		1.0	0.42	mg/L		10/05/17 09:14	10/05/17 17:16	100
Calcium	100		5.0	2.5	mg/L		10/05/17 09:14	10/05/17 17:16	100

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	700		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	160		20	6.0	mg/L			10/10/17 15:18	10
Fluoride	0.96		0.10	0.032	mg/L			10/18/17 13:48	1
Sulfate	240		100	28	mg/L			10/10/17 14:15	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.84				SU			10/04/17 11:57	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-202
Date Collected: 10/04/17 12:58
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.087		0.050	0.021	mg/L		10/05/17 09:14	10/05/17 17:43	5
Calcium	4.9		0.25	0.13	mg/L		10/05/17 09:14	10/05/17 17:43	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	48		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	17		2.0	0.60	mg/L			10/10/17 14:55	1
Fluoride	0.040	I	0.10	0.032	mg/L			10/18/17 13:50	1
Sulfate	8.5		5.0	1.4	mg/L			10/10/17 13:12	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.47				SU			10/04/17 12:58	1

Client Sample ID: MW-203
Date Collected: 10/04/17 10:33
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.97		0.050	0.021	mg/L		10/05/17 09:14	10/06/17 11:43	5
Calcium	24		0.25	0.13	mg/L		10/05/17 09:14	10/06/17 11:43	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	17		2.0	0.60	mg/L			10/10/17 14:55	1
Fluoride	0.060	I	0.10	0.032	mg/L			10/18/17 13:54	1
Sulfate	82		25	7.0	mg/L			10/10/17 14:15	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.46				SU			10/04/17 10:33	1

Client Sample ID: MW-204
Date Collected: 10/04/17 09:26
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.9		0.50	0.21	mg/L		10/05/17 09:14	10/05/17 18:01	50
Calcium	74		2.5	1.3	mg/L		10/05/17 09:14	10/05/17 18:01	50

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	710		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	70		10	3.0	mg/L			10/10/17 15:18	5
Fluoride	0.31		0.10	0.032	mg/L			10/18/17 13:57	1
Sulfate	350		150	42	mg/L			10/10/17 14:15	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.14				SU			10/04/17 09:26	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-205
Date Collected: 10/04/17 08:24
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.039	I	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 18:05	5
Calcium	26		0.25	0.13	mg/L		10/05/17 09:14	10/05/17 18:05	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	2.7	V	2.0	0.60	mg/L			10/10/17 14:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/18/17 13:59	1
Sulfate	15		5.0	1.4	mg/L			10/10/17 13:12	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.66				SU			10/04/17 08:24	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-206
Date Collected: 10/03/17 13:09
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	52		5.0	2.1	mg/L		10/05/17 09:14	10/05/17 18:10	500
Calcium	1300		25	13	mg/L		10/05/17 09:14	10/05/17 18:10	500

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7100		25	17	mg/L			10/05/17 13:13	1
Chloride	2300		100	30	mg/L			10/10/17 15:18	50
Fluoride	0.11		0.10	0.032	mg/L			10/06/17 09:49	1
Sulfate	480		150	42	mg/L			10/10/17 14:19	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.11				SU			10/03/17 13:09	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: DUP-02
Date Collected: 10/03/17 12:09
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	41		2.0	0.84	mg/L		10/05/17 09:14	10/05/17 18:14	200
Calcium	1300		10	5.0	mg/L		10/05/17 09:14	10/05/17 18:14	200

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6900		25	17	mg/L			10/05/17 13:13	1
Chloride	2300		100	30	mg/L			10/10/17 15:18	50
Fluoride	0.10		0.10	0.032	mg/L			10/06/17 09:52	1
Sulfate	480		150	42	mg/L			10/10/17 14:19	30

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: FB-02
Date Collected: 10/04/17 11:05
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-9
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 16:44	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:14	10/05/17 16:44	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			10/05/17 14:17	1
Chloride	0.60	U	2.0	0.60	mg/L			10/10/17 14:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/18/17 14:06	1
Sulfate	**1.8**	**I**	5.0	1.4	mg/L			10/10/17 13:12	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: EB-02
Date Collected: 10/04/17 12:05
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-10
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 16:48	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:14	10/05/17 16:48	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			10/05/17 13:13	1
Chloride	0.60	U	2.0	0.60	mg/L			10/10/17 14:55	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/18/17 14:10	1
Sulfate	**1.7**	**I**	5.0	1.4	mg/L			10/10/17 13:12	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: DUP-03
Date Collected: 10/04/17 11:58
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-11
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - RA

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.099		0.050	0.021	mg/L		10/05/17 09:14	10/06/17 11:47	5
Calcium	4.8		0.25	0.13	mg/L		10/05/17 09:14	10/06/17 11:47	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		5.0	3.4	mg/L			10/05/17 13:13	1
Chloride	17		2.0	0.60	mg/L			10/10/17 15:00	1
Fluoride	0.032	U	0.10	0.032	mg/L			10/18/17 14:14	1
Sulfate	8.6		5.0	1.4	mg/L			10/10/17 13:12	1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

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.
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.

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)

Client Sample ID: MW-200

Lab Sample ID: 400-144160-1

Date Collected: 10/04/17 07:38

Matrix: Water

Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	200	370885	10/05/17 17:02	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370780	10/05/17 14:17	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	371344	10/10/17 15:18	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 13:44	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	371339	10/10/17 14:15	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/04/17 07:38	BWS	TAL PEN

Client Sample ID: MW-201

Lab Sample ID: 400-144160-2

Date Collected: 10/04/17 11:57

Matrix: Water

Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	100	370885	10/05/17 17:16	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	371344	10/10/17 15:18	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 13:48	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	371339	10/10/17 14:15	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/04/17 11:57	BWS	TAL PEN

Client Sample ID: MW-202

Lab Sample ID: 400-144160-3

Date Collected: 10/04/17 12:58

Matrix: Water

Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 17:43	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371344	10/10/17 14:55	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 13:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371339	10/10/17 13:12	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/04/17 12:58	BWS	TAL PEN

Client Sample ID: MW-203

Lab Sample ID: 400-144160-4

Date Collected: 10/04/17 10:33

Matrix: Water

Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	RA		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	371110	10/06/17 11:43	DRE	TAL PEN

Client Sample ID: MW-203
Date Collected: 10/04/17 10:33
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371344	10/10/17 14:55	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 13:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	371339	10/10/17 14:15	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/04/17 10:33	BWS	TAL PEN

Client Sample ID: MW-204
Date Collected: 10/04/17 09:26
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	370885	10/05/17 18:01	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	371344	10/10/17 15:18	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 13:57	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	371339	10/10/17 14:15	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/04/17 09:26	BWS	TAL PEN

Client Sample ID: MW-205
Date Collected: 10/04/17 08:24
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 18:05	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371344	10/10/17 14:55	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 13:59	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371339	10/10/17 13:12	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/04/17 08:24	BWS	TAL PEN

Client Sample ID: MW-206
Date Collected: 10/03/17 13:09
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	500	370885	10/05/17 18:10	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	371344	10/10/17 15:18	JLB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: MW-206

Lab Sample ID: 400-144160-7

Date Collected: 10/03/17 13:09
Matrix: Water
Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:49	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	371339	10/10/17 14:19	JLB	TAL PEN
Total/NA	Analysis	Field Sampling		1	373090	10/03/17 13:09	BWS	TAL PEN

Client Sample ID: DUP-02

Lab Sample ID: 400-144160-8

Date Collected: 10/03/17 12:09
Matrix: Water
Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	200	370885	10/05/17 18:14	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		50	371344	10/10/17 15:18	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370894	10/06/17 09:52	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	371339	10/10/17 14:19	JLB	TAL PEN

Client Sample ID: FB-02

Lab Sample ID: 400-144160-9

Date Collected: 10/04/17 11:05
Matrix: Water
Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 16:44	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370780	10/05/17 14:17	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371344	10/10/17 14:55	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 14:06	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371339	10/10/17 13:12	JLB	TAL PEN

Client Sample ID: EB-02

Lab Sample ID: 400-144160-10

Date Collected: 10/04/17 12:05
Matrix: Water
Date Received: 10/04/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	370885	10/05/17 16:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371344	10/10/17 14:55	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 14:10	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371339	10/10/17 13:12	JLB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

Client Sample ID: DUP-03

Date Collected: 10/04/17 11:58
Date Received: 10/04/17 13:50

Lab Sample ID: 400-144160-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	RA		370727	10/05/17 09:14	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	371110	10/06/17 11:47	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	370778	10/05/17 13:13	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	371344	10/10/17 15:00	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	372422	10/18/17 14:14	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	371339	10/10/17 13:12	JLB	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 370727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-144160-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-144160-3	MW-202	Total Recoverable	Water	3005A	
400-144160-4 - RA	MW-203	Total Recoverable	Water	3005A	
400-144160-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-144160-6	MW-205	Total Recoverable	Water	3005A	
400-144160-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-144160-8 - DL	DUP-02	Total Recoverable	Water	3005A	
400-144160-9	FB-02	Total Recoverable	Water	3005A	
400-144160-10	EB-02	Total Recoverable	Water	3005A	
400-144160-11 - RA	DUP-03	Total Recoverable	Water	3005A	
MB 400-370727/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-370727/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-144160-1 MS - DL	MW-200	Total Recoverable	Water	3005A	
400-144160-1 MSD - DL	MW-200	Total Recoverable	Water	3005A	

Analysis Batch: 370885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1 - DL	MW-200	Total Recoverable	Water	6020	370727
400-144160-2 - DL	MW-201	Total Recoverable	Water	6020	370727
400-144160-3	MW-202	Total Recoverable	Water	6020	370727
400-144160-5 - DL	MW-204	Total Recoverable	Water	6020	370727
400-144160-6	MW-205	Total Recoverable	Water	6020	370727
400-144160-7 - DL	MW-206	Total Recoverable	Water	6020	370727
400-144160-8 - DL	DUP-02	Total Recoverable	Water	6020	370727
400-144160-9	FB-02	Total Recoverable	Water	6020	370727
400-144160-10	EB-02	Total Recoverable	Water	6020	370727
MB 400-370727/1-A ^5	Method Blank	Total Recoverable	Water	6020	370727
LCS 400-370727/2-A	Lab Control Sample	Total Recoverable	Water	6020	370727
400-144160-1 MS - DL	MW-200	Total Recoverable	Water	6020	370727
400-144160-1 MSD - DL	MW-200	Total Recoverable	Water	6020	370727

Analysis Batch: 371110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-4 - RA	MW-203	Total Recoverable	Water	6020	370727
400-144160-11 - RA	DUP-03	Total Recoverable	Water	6020	370727

General Chemistry

Analysis Batch: 370778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-2	MW-201	Total/NA	Water	SM 2540C	
400-144160-3	MW-202	Total/NA	Water	SM 2540C	
400-144160-4	MW-203	Total/NA	Water	SM 2540C	
400-144160-5	MW-204	Total/NA	Water	SM 2540C	
400-144160-6	MW-205	Total/NA	Water	SM 2540C	
400-144160-7	MW-206	Total/NA	Water	SM 2540C	
400-144160-8	DUP-02	Total/NA	Water	SM 2540C	
400-144160-10	EB-02	Total/NA	Water	SM 2540C	
400-144160-11	DUP-03	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 370778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-370778/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-370778/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144144-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-144167-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 370780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1	MW-200	Total/NA	Water	SM 2540C	
400-144160-9	FB-02	Total/NA	Water	SM 2540C	
MB 400-370780/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-370780/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-144142-D-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 370894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-7	MW-206	Total/NA	Water	SM 4500 F C	
400-144160-8	DUP-02	Total/NA	Water	SM 4500 F C	
MB 400-370894/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370894/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-144028-C-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-144028-C-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-144121-D-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 371339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-144160-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-144160-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-144160-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-144160-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-144160-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-144160-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-144160-8	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-144160-9	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-144160-10	EB-02	Total/NA	Water	SM 4500 SO4 E	
400-144160-11	DUP-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-371339/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-371339/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-371339/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-144160-1 MS	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-144160-1 MSD	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-144160-11 MS	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-144160-11 MSD	DUP-03	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 371344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-144160-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-144160-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-144160-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-144160-5	MW-204	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 371344 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-144160-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-144160-8	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-144160-9	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-144160-10	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-144160-11	DUP-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-371344/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-371344/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-371344/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-144160-3 MS	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-144160-3 MSD	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-144160-11 MS	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-144160-11 MSD	DUP-03	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 372422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1	MW-200	Total/NA	Water	SM 4500 F C	
400-144160-2	MW-201	Total/NA	Water	SM 4500 F C	
400-144160-3	MW-202	Total/NA	Water	SM 4500 F C	
400-144160-4	MW-203	Total/NA	Water	SM 4500 F C	
400-144160-5	MW-204	Total/NA	Water	SM 4500 F C	
400-144160-6	MW-205	Total/NA	Water	SM 4500 F C	
400-144160-9	FB-02	Total/NA	Water	SM 4500 F C	
400-144160-10	EB-02	Total/NA	Water	SM 4500 F C	
400-144160-11	DUP-03	Total/NA	Water	SM 4500 F C	
MB 400-372422/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-372422/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-83166-K-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-83166-K-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-144160-9 DU	FB-02	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 373090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-144160-1	MW-200	Total/NA	Water	Field Sampling	
400-144160-2	MW-201	Total/NA	Water	Field Sampling	
400-144160-3	MW-202	Total/NA	Water	Field Sampling	
400-144160-4	MW-203	Total/NA	Water	Field Sampling	
400-144160-5	MW-204	Total/NA	Water	Field Sampling	
400-144160-6	MW-205	Total/NA	Water	Field Sampling	
400-144160-7	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-370727/1-A ^5
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		10/05/17 09:14	10/05/17 16:30	5
Calcium	0.13	U	0.25	0.13	mg/L		10/05/17 09:14	10/05/17 16:30	5

Lab Sample ID: LCS 400-370727/2-A
Matrix: Water
Analysis Batch: 370885

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.100		mg/L		100	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120

Method: 6020 - Metals (ICP/MS) - DL

Lab Sample ID: 400-144160-1 MS
Matrix: Water
Analysis Batch: 370885

Client Sample ID: MW-200
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron - DL	18		0.100	18.8	J3	mg/L		366	75 - 125
Calcium - DL	490		5.00	500		mg/L		109	75 - 125

Lab Sample ID: 400-144160-1 MSD
Matrix: Water
Analysis Batch: 370885

Client Sample ID: MW-200
Prep Type: Total Recoverable
Prep Batch: 370727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron - DL	18		0.100	19.3	J3	mg/L		841	75 - 125	2	20
Calcium - DL	490		5.00	496	J3	mg/L		40	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-370778/1
Matrix: Water
Analysis Batch: 370778

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			10/05/17 13:13	1

Lab Sample ID: LCS 400-370778/2
Matrix: Water
Analysis Batch: 370778

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: 400-144144-B-1 DU
Matrix: Water
Analysis Batch: 370778

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	3.4	U		3.4	U	mg/L				NC	5

Lab Sample ID: 400-144167-A-5 DU
Matrix: Water
Analysis Batch: 370778

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	320			314		mg/L				0.6	5

Lab Sample ID: MB 400-370780/1
Matrix: Water
Analysis Batch: 370780

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			10/05/17 14:17	1

Lab Sample ID: LCS 400-370780/2
Matrix: Water
Analysis Batch: 370780

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	274		mg/L		94	78 - 122		

Lab Sample ID: 400-144142-D-2 DU
Matrix: Water
Analysis Batch: 370780

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			124		mg/L				2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-371344/6
Matrix: Water
Analysis Batch: 371344

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.702	I	2.0	0.60	mg/L			10/10/17 14:52	1

Lab Sample ID: LCS 400-371344/7
Matrix: Water
Analysis Batch: 371344

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	32.0		mg/L		107	90 - 110		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MRL 400-371344/3
Matrix: Water
Analysis Batch: 371344

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	2.02		mg/L		101	50 - 150

Lab Sample ID: 400-144160-3 MS
Matrix: Water
Analysis Batch: 371344

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	26.3		mg/L		90	73 - 120

Lab Sample ID: 400-144160-3 MSD
Matrix: Water
Analysis Batch: 371344

Client Sample ID: MW-202
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	26.3		mg/L		90	73 - 120	0	8

Lab Sample ID: 400-144160-11 MS
Matrix: Water
Analysis Batch: 371344

Client Sample ID: DUP-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	26.6		mg/L		96	73 - 120

Lab Sample ID: 400-144160-11 MSD
Matrix: Water
Analysis Batch: 371344

Client Sample ID: DUP-03
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	26.1		mg/L		90	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-370894/3
Matrix: Water
Analysis Batch: 370894

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			10/06/17 08:55	1

Lab Sample ID: LCS 400-370894/4
Matrix: Water
Analysis Batch: 370894

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	3.98		mg/L		100	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-144028-C-10 MS
Matrix: Water
Analysis Batch: 370894

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	1.04		mg/L		104	75 - 125

Lab Sample ID: 400-144028-C-10 MSD
Matrix: Water
Analysis Batch: 370894

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	1.06		mg/L		106	75 - 125	2	4

Lab Sample ID: 400-144121-D-1 DU
Matrix: Water
Analysis Batch: 370894

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.070	I	0.0600	I J3	mg/L		15	4

Lab Sample ID: MB 400-372422/3
Matrix: Water
Analysis Batch: 372422

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			10/18/17 13:18	1

Lab Sample ID: LCS 400-372422/4
Matrix: Water
Analysis Batch: 372422

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	4.22		mg/L		106	90 - 110

Lab Sample ID: 660-83166-K-1 MS
Matrix: Water
Analysis Batch: 372422

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	1.2		1.00	1.89	J3	mg/L		68	75 - 125

Lab Sample ID: 660-83166-K-1 MSD
Matrix: Water
Analysis Batch: 372422

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	1.2		1.00	1.89	J3	mg/L		68	75 - 125	0	4

Lab Sample ID: 400-144160-9 DU
Matrix: Water
Analysis Batch: 372422

Client Sample ID: FB-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 400-371339/6
Matrix: Water
Analysis Batch: 371339

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			10/10/17 13:05	1

Lab Sample ID: LCS 400-371339/7
Matrix: Water
Analysis Batch: 371339

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	14.6		mg/L		97	90 - 110

Lab Sample ID: MRL 400-371339/3
Matrix: Water
Analysis Batch: 371339

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	5.01		mg/L		100	50 - 150

Lab Sample ID: 400-144160-1 MS
Matrix: Water
Analysis Batch: 371339

Client Sample ID: MW-200
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	250		200	257	J3	mg/L		3	77 - 128

Lab Sample ID: 400-144160-1 MSD
Matrix: Water
Analysis Batch: 371339

Client Sample ID: MW-200
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	250		200	255	J3	mg/L		2	77 - 128	1	5

Lab Sample ID: 400-144160-11 MS
Matrix: Water
Analysis Batch: 371339

Client Sample ID: DUP-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	8.6		10.0	17.1		mg/L		86	77 - 128

Lab Sample ID: 400-144160-11 MSD
Matrix: Water
Analysis Batch: 371339

Client Sample ID: DUP-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	8.6		10.0	14.6	J3	mg/L		60	77 - 128	16	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 Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-68496-27807.1
Client Contact: Kristi Mitchell	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:	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		
Email: krmitche@southernco.com	WO #:		Other:
Project Name: CCR Plant Crist Gypsum Storage Area App III	Project #: 40005424		
Site:	SSOW#:		

400-144160 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)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	FieldSampling - Field pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N		
MW-200	10/4/17	0738	G	Water			X	X	X		
MW-201	10/4/17	1157	G	Water							
MW-202	10/4/17	1258	G	Water							
MW-203	10/4/17	1033	G	Water							
MW-204	10/4/17	0926	G	Water							
MW-205	10/4/17	0824	G	Water							
MW-206	10/3/17	1309	G	Water							
Dup-02	10/3/17	1209	G	W							
FB-02	10/4/17	1105	G	W							
EB-02	10/4/17	1205	G	W							
Dup-03	10/4/17	1158	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
1		10/4/17 1350	RDT		10/4/17 1350	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 0.0°C IR7

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-144160-1
SDG Number: Plant Crist Gypsum Storage Area App III

Login Number: 144160
List Number: 1
Creator: Perez, Trina M

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	0.0°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 Plant Crist

TestAmerica Job ID: 400-144160-1
SDG: Plant Crist Gypsum Storage Area App III

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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

FIELD SAMPLING REPORTS

VERIFICATION EVENT

Product Name: Low-Flow System

Date: 2017-12-19 09:22:12

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	122.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	115.0 ft

Well Information:		Pumping Information:	
Well ID	MW-103	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7645376 L
Well Total Depth	120.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	111.61 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	09:05:36	300.07	21.57	5.19	134.66	11.40	111.67	7.83	92.77
Last 5	09:10:36	600.02	21.55	5.16	139.10	3.02	111.67	7.75	86.79
Last 5	09:15:36	900.02	21.51	5.11	141.96	1.45	111.67	7.74	84.42
Last 5	09:20:36	1200.02	21.55	5.10	143.56	0.73	111.67	7.69	83.05
Last 5									
Variance 0			-0.02	-0.04	4.43			-0.08	-5.98
Variance 1			-0.04	-0.04	2.86			-0.00	-2.37
Variance 2			0.04	-0.01	1.60			-0.05	-1.36

Notes

Sample time 0922. Cloudy 69.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-19 10:50:01

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	83 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78.0 ft

Well Information:		Pumping Information:	
Well ID	MW-104	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5904641 L
Well Total Depth	83.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	58.89 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%	+/- 5		+/- 0.2	+/- 10
Last 5	10:28:03	599.94	22.39	4.12	1242.67	8.55	58.95	2.24	132.02
Last 5	10:33:03	899.94	22.40	4.11	1273.56	4.02	58.95	2.13	132.13
Last 5	10:38:03	1199.93	22.40	4.10	1285.03	2.92	58.95	2.03	132.52
Last 5	10:43:03	1499.94	22.34	4.10	1293.23	2.71	58.95	1.96	133.13
Last 5	10:48:03	1799.94	22.35	4.10	1299.49	1.93	58.95	1.91	133.67
Variance 0			0.00	-0.01	11.47			-0.10	0.40
Variance 1			-0.06	-0.01	8.20			-0.07	0.61
Variance 2			0.01	-0.00	6.26			-0.05	0.53

Notes

Sample time 1050. Cloudy 70.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-19 19:49:53

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	43 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.0 ft

Well Information:		Pumping Information:	
Well ID	MW-105	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4119272 L
Well Total Depth	43.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.01 in
Depth to Water	21.56 ft	Total Volume Pumped	80 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	19:26:41	10812.87	22.58	6.11	745.65	6.55	21.67	0.06	39.89
Last 5	19:31:41	11112.87	22.58	6.11	747.96	6.40	21.67	0.06	39.79
Last 5	19:36:42	11413.87	22.56	6.11	753.58	6.33	21.67	0.06	39.15
Last 5	19:41:42	11713.87	22.58	6.11	748.19	6.07	21.67	0.06	38.82
Last 5	19:46:42	12013.87	22.57	6.11	751.86	6.05	21.67	0.07	38.59
Variance 0			-0.02	0.00	5.62			-0.00	-0.64
Variance 1			0.02	0.00	-5.39			0.00	-0.32
Variance 2			-0.00	-0.00	3.68			0.00	-0.23

Notes

Sample time 1950. Night 69.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-19 13:40:43

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	133 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	128.0 ft

Well Information:		Pumping Information:	
Well ID	MW-109	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.8136352 L
Well Total Depth	133.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	110.75 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	13:24:14	300.02	22.41	4.78	57.36	1.21	111.82	8.78	86.25
Last 5	13:29:14	600.02	21.64	4.75	56.65	1.06	111.82	8.74	75.25
Last 5	13:34:14	900.02	21.50	4.77	56.83	0.49	111.82	8.68	71.01
Last 5	13:39:14	1200.02	21.64	4.76	57.11	0.25	111.82	8.63	68.82
Last 5									
Variance 0			-0.77	-0.03	-0.71			-0.04	-11.00
Variance 1			-0.14	0.01	0.18			-0.05	-4.24
Variance 2			0.14	-0.01	0.28			-0.05	-2.19

Notes

Sample time 1342. Cloudy 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-19 15:36:20

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist LF-1 CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	119 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	114.0 ft

Well Information:		Pumping Information:	
Well ID	MW-110	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7511473 L
Well Total Depth	119.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.03 in
Depth to Water	81.04 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	15:13:24	2699.94	21.95	4.83	1196.26	1.67	81.17	3.34	137.75
Last 5	15:18:24	2999.95	21.91	4.83	1224.00	1.38	81.17	3.21	139.18
Last 5	15:23:26	3301.95	21.87	4.84	1250.29	1.15	81.17	3.07	141.02
Last 5	15:28:26	3601.95	21.88	4.84	1266.36	1.02	81.17	2.99	142.73
Last 5	15:33:26	3901.91	21.84	4.84	1270.85	0.92	81.17	2.93	143.80
Variance 0			-0.04	0.01	26.28			-0.14	1.85
Variance 1			0.01	0.00	16.08			-0.08	1.71
Variance 2			-0.04	0.00	4.48			-0.06	1.07

Notes

Sample time 1536. Dup-01 fake time 1436. Cloudy 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 13:30:59

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	34 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29.0 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3717564 L
Well Total Depth	34.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	16.96 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	13:06:48	600.04	22.58	4.86	3555.04	2.08	16.96	0.23	134.36
Last 5	13:11:48	900.02	22.55	4.88	3404.84	1.65	16.96	0.23	133.76
Last 5	13:16:48	1200.02	22.48	4.91	3284.10	0.99	16.96	0.23	133.42
Last 5	13:21:48	1500.02	22.44	4.93	3218.01	0.87	19.96	0.24	133.27
Last 5	13:26:48	1800.02	22.39	4.94	3164.22	1.08	19.96	0.42	133.27
Variance 0			-0.07	0.03	-120.74			0.00	-0.35
Variance 1			-0.04	0.02	-66.09			0.00	-0.15
Variance 2			-0.04	0.01	-53.79			0.18	-0.01

Notes

Sample time 1330. Started raining halfway through purge. Rain 72.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 10:01:56

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55.0 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	48.04 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	09:43:19	300.02	23.56	4.93	912.33	9.41	48.09	0.47	134.14
Last 5	09:48:19	600.02	23.28	4.93	888.54	5.06	48.09	0.43	133.13
Last 5	09:53:19	900.02	23.43	4.93	876.86	2.78	48.09	0.44	132.82
Last 5	09:58:19	1200.02	23.34	4.94	872.39	1.86	48.09	0.44	132.50
Last 5									
Variance 0			-0.28	-0.00	-23.79			-0.03	-1.01
Variance 1			0.14	0.00	-11.68			0.00	-0.31
Variance 2			-0.09	0.01	-4.48			0.01	-0.32

Notes

Sample time 1002. Cloudy 73.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 08:37:17

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55.0 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	50.93 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	08:14:45	900.02	22.00	4.57	117.54	3.24	51.02	1.78	72.95
Last 5	08:19:45	1200.02	22.04	4.58	112.85	2.66	51.02	1.97	71.54
Last 5	08:24:45	1500.02	21.97	4.60	108.67	2.54	51.02	2.16	70.45
Last 5	08:29:45	1800.02	21.96	4.61	108.88	2.47	51.02	2.18	70.55
Last 5	08:34:45	2099.96	21.95	4.62	106.35	2.49	51.02	2.27	70.83
Variance 0			-0.07	0.02	-4.18			0.19	-1.09
Variance 1			-0.00	0.01	0.21			0.02	0.10
Variance 2			-0.01	0.01	-2.53			0.09	0.28

Notes

Sample time 0837. Cloudy 71.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 16:02:57

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	63 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58.0 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5011957 L
Well Total Depth	63.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.01 in
Depth to Water	44.63 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%	+/- 5		+/- 0.2	+/- 10
Last 5	15:39:40	1800.02	21.73	4.66	285.28	5.20	44.74	0.33	94.10
Last 5	15:44:40	2100.02	21.69	4.66	288.08	3.80	44.74	0.33	94.50
Last 5	15:49:40	2400.02	21.64	4.66	290.83	3.09	44.74	0.34	94.89
Last 5	15:54:40	2700.02	21.64	4.66	289.29	2.92	44.74	0.33	94.36
Last 5	15:59:40	3000.02	21.60	4.66	291.92	2.48	44.74	0.34	94.66
Variance 0			-0.05	0.00	2.75			0.01	0.39
Variance 1			-0.00	-0.00	-1.54			-0.01	-0.54
Variance 2			-0.03	-0.00	2.63			0.01	0.31

Notes

Sample time 1604. Cloudy 72.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 17:30:59

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	33 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28.0 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.367293 L
Well Total Depth	33.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	20 in
Depth to Water	13.09 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	17:06:26	1500.02	20.81	4.33	1100.55	0.32	14.87	0.74	155.76
Last 5	17:11:26	1800.02	20.79	4.34	1093.52	0.48	14.87	0.57	155.64
Last 5	17:16:26	2100.02	20.79	4.34	1100.44	0.34	14.87	0.45	155.42
Last 5	17:21:26	2400.02	20.76	4.34	1095.83	0.36	14.87	0.36	155.35
Last 5	17:26:26	2700.02	20.75	4.34	1091.54	0.22	14.87	0.30	154.83
Variance 0			-0.01	0.01	6.92			-0.12	-0.23
Variance 1			-0.02	-0.00	-4.61			-0.09	-0.07
Variance 2			-0.02	0.01	-4.29			-0.05	-0.52

Notes

Sample time 1730. EB-02 sample time 1627. Night 69.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 12:10:26

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	33 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	28.0 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.367293 L
Well Total Depth	33.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	16.03 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	11:52:52	300.02	22.47	5.67	139.94	5.97	16.03	2.89	70.91
Last 5	11:57:52	600.02	22.38	5.69	141.11	0.84	16.03	2.83	67.69
Last 5	12:02:52	900.02	22.35	5.70	141.12	0.51	16.03	2.88	66.98
Last 5	12:07:52	1199.95	22.27	5.71	142.31	0.44	16.03	2.82	64.37
Last 5									
Variance 0			-0.09	0.01	1.17			-0.05	-3.22
Variance 1			-0.03	0.01	0.02			0.04	-0.71
Variance 2			-0.08	0.01	1.19			-0.06	-2.61

Notes

Sample time 1210. Dup-03 fake time 1110. Cloudy 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 11:14:31

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist Gypsum CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	33.0 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3896101 L
Well Total Depth	38.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.07 in
Depth to Water	25.86 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:53:13	899.90	23.97	4.28	8055.06	0.31	25.93	0.20	150.48
Last 5	10:58:13	1199.90	24.33	4.29	8018.84	0.24	25.93	0.17	150.45
Last 5	11:03:13	1499.90	24.01	4.30	8101.10	0.20	25.93	0.11	150.53
Last 5	11:08:13	1799.90	24.07	4.30	8103.79	0.26	25.93	0.12	150.20
Last 5	11:13:13	2099.90	23.93	4.31	8171.90	0.32	25.93	0.12	150.12
Variance 0			-0.31	0.02	82.26			-0.06	0.08
Variance 1			0.06	-0.00	2.69			0.01	-0.33
Variance 2			-0.15	0.01	68.10			0.00	-0.07

Notes

Sample time 1115. Cloudy 75.

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 12:57:37

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.17 in
Site Name	Crist LF-2 CCR	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-303	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	35.82 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:45:23	300.03	22.88	6.90	406.33	5.07	35.82	1.65	61.99
Last 5	12:50:23	600.02	22.83	6.96	406.92	2.98	35.82	1.52	58.59
Last 5	12:55:23	900.02	22.78	6.99	412.80	2.20	35.82	1.51	56.73
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	0.07	0.59			-0.13	-3.40
Variance 2			-0.04	0.03	5.88			-0.01	-1.87

Notes

Sample@1257, Cloudy 72

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 10:42:56

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.17 in
Site Name	Crist LF-2 CCR	Tubing Length	55 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	MW-304	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4654883 L
Well Total Depth	53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	34.68 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:18:06	900.02	24.53	5.86	1248.70	21.10	34.68	0.54	96.16
Last 5	10:23:06	1200.03	24.49	5.86	1254.76	16.70	34.68	0.48	91.45
Last 5	10:28:06	1500.02	24.55	5.86	1256.94	10.60	34.68	0.47	88.17
Last 5	10:33:06	1800.02	24.48	5.86	1258.68	6.32	34.68	0.47	85.50
Last 5	10:38:06	2100.02	24.48	5.86	1259.77	2.04	34.68	0.46	82.95
Variance 0			0.06	-0.00	2.18			-0.01	-3.29
Variance 1			-0.07	-0.01	1.74			-0.01	-2.67
Variance 2			0.01	0.00	1.09			-0.01	-2.54

Notes

Sample@1041, DUP-02 @0941 Cloudy 75

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 09:35:30

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.17 in
Site Name	Crist LF-2 CCR	Tubing Length	75 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	MW-305	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5547567 L
Well Total Depth	73 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	49.2 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%	+/- 10		+/- 0.2	+/- 10
Last 5	09:13:45	2700.02	21.99	4.87	35.72	4.16	49.21	8.88	97.71
Last 5	09:18:45	3000.02	22.03	4.88	35.64	3.22	49.21	8.74	98.21
Last 5	09:23:45	3300.02	21.72	4.86	35.87	3.38	49.21	8.62	99.41
Last 5	09:28:45	3600.03	21.76	4.86	35.85	2.53	49.21	8.52	99.40
Last 5	09:33:45	3900.02	21.78	4.87	35.96	2.27	49.21	8.56	99.72
Variance 0			-0.31	-0.02	0.23			-0.12	1.21
Variance 1			0.04	0.00	-0.02			-0.10	-0.01
Variance 2			0.02	0.01	0.11			0.04	0.32

Notes

Sample@0935, Cloudy 74

Grab Samples

Product Name: Low-Flow System

Date: 2017-12-20 11:43:17

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	LF-2	Tubing Diameter	.17 in
Site Name	Crist LF-2 CCR	Tubing Length	65 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	383005		
Turbidity Make/Model	Hach	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-308	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5101225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	34.04 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	11:26:07	300.06	23.01	5.71	667.25	0.86	34.05	3.46	87.07
Last 5	11:31:07	600.02	22.94	5.90	697.93	0.63	34.05	3.38	82.38
Last 5	11:36:07	900.02	22.85	6.01	717.84	0.98	34.05	3.35	79.01
Last 5	11:41:07	1200.02	22.80	6.07	727.57	0.85	34.05	3.39	76.62
Last 5									
Variance 0			-0.07	0.19	30.67			-0.08	-4.69
Variance 1			-0.09	0.11	19.91			-0.03	-3.36
Variance 2			-0.05	0.06	9.73			0.04	-2.39

Notes

Sample @1142, Cloudy 72

Grab Samples

LABORATORY ANALYTICAL

VERIFICATION EVENT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-147542-1
TestAmerica Sample Delivery Group: Plant Crist Landfill #1
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
1/3/2018 5:22:58 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 11
Chronicle 12
QC Association 14
QC Sample Results 16
Chain of Custody 20
Receipt Checklists 21
Certification Summary 22

Job ID: 400-147542-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-147542-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-147542-2), MW-110 (400-147542-5) and DUP-01 (400-147542-6). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-104 (400-147542-2), MW-105 (400-147542-3), MW-110 (400-147542-5) and DUP-01 (400-147542-6). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 381123 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-103 (400-147542-1), MW-104 (400-147542-2), MW-105 (400-147542-3), MW-110 (400-147542-5), DUP-01 (400-147542-6), (400-147640-B-2), (400-147640-B-2 MS) and (400-147640-B-2 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #1

Client Sample ID: MW-103 — Lab Sample ID: 400-147542-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.35		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	3.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	72		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	36		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	5.1				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-104 — Lab Sample ID: 400-147542-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	47		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - DL	11		1.0	0.42	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	900		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	84		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.26		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	400		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.1				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-105 — Lab Sample ID: 400-147542-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1.6		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	69		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	460		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	120		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	51		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	6.11				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-109 — Lab Sample ID: 400-147542-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	3.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Sulfate	8.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.76				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-110 — Lab Sample ID: 400-147542-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	41		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - DL	5.3		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	840		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	180		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	280		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #1

Client Sample ID: DUP-01

Lab Sample ID: 400-147542-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	41		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - DL	4.9		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	810		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	180		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Sulfate	300		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #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

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 Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-147542-1	MW-103	Water	12/19/17 09:22	12/20/17 09:26
400-147542-2	MW-104	Water	12/19/17 10:50	12/20/17 09:26
400-147542-3	MW-105	Water	12/19/17 19:50	12/20/17 09:26
400-147542-4	MW-109	Water	12/19/17 13:42	12/20/17 09:26
400-147542-5	MW-110	Water	12/19/17 15:36	12/20/17 09:26
400-147542-6	DUP-01	Water	12/19/17 14:36	12/20/17 09:26

Client Sample ID: MW-103

Date Collected: 12/19/17 09:22
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-1

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.35		0.050	0.021	mg/L		12/21/17 09:17	12/21/17 16:28	5
Calcium	3.7		0.25	0.13	mg/L		12/21/17 09:17	12/21/17 16:28	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	72		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	9.3		2.0	0.60	mg/L			12/26/17 11:02	1
Sulfate	36		10	2.8	mg/L			12/27/17 10:20	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.1				SU			12/19/17 09:22	1

Client Sample ID: MW-104

Date Collected: 12/19/17 10:50
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-2

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47		0.25	0.13	mg/L		12/21/17 09:17	12/21/17 16:50	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11		1.0	0.42	mg/L		12/21/17 09:17	12/21/17 16:59	100

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	84		4.0	1.2	mg/L			12/27/17 13:08	2
Fluoride	0.26		0.10	0.032	mg/L			12/29/17 11:55	1
Sulfate	400		100	28	mg/L			12/27/17 10:20	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.1				SU			12/19/17 10:50	1

Client Sample ID: MW-105

Date Collected: 12/19/17 19:50
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-3

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.6		0.050	0.021	mg/L		12/21/17 09:17	12/21/17 17:26	5
Calcium	69		0.25	0.13	mg/L		12/21/17 09:17	12/21/17 17:26	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	460		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	120		10	3.0	mg/L			12/27/17 12:46	5
Sulfate	51		10	2.8	mg/L			12/27/17 10:20	2

Client Sample ID: MW-105
Date Collected: 12/19/17 19:50
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-3
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.11				SU			12/19/17 19:50	1

Client Sample ID: MW-109
Date Collected: 12/19/17 13:42
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	3.1		0.25	0.13	mg/L		12/21/17 09:17	12/21/17 17:31	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	8.4		5.0	1.4	mg/L			12/27/17 09:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.76				SU			12/19/17 13:42	1

Client Sample ID: MW-110
Date Collected: 12/19/17 15:36
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41		0.25	0.13	mg/L		12/21/17 09:17	12/21/17 17:35	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.3		0.25	0.11	mg/L		12/21/17 09:17	12/21/17 17:40	25

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	840		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	180		10	3.0	mg/L			12/27/17 12:46	5
Sulfate	280		50	14	mg/L			12/27/17 10:39	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.84				SU			12/19/17 15:36	1

Client Sample ID: DUP-01
Date Collected: 12/19/17 14:36
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41		0.25	0.13	mg/L		12/21/17 09:17	12/21/17 17:44	5

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.9		0.25	0.11	mg/L		12/21/17 09:17	12/21/17 17:53	25

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #1

Client Sample ID: DUP-01
Date Collected: 12/19/17 14:36
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-6
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	810		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	180		10	3.0	mg/L			12/27/17 12:46	5
Sulfate	300		50	14	mg/L			12/27/17 10:57	10

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
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.
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)

Client Sample ID: MW-103
Date Collected: 12/19/17 09:22
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380738	12/21/17 16:28	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	381024	12/26/17 11:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	381123	12/27/17 10:20	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/19/17 09:22	BWS	TAL PEN

Client Sample ID: MW-104
Date Collected: 12/19/17 10:50
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380738	12/21/17 16:50	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	100	380738	12/21/17 16:59	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	381153	12/27/17 13:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 11:55	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	381123	12/27/17 10:20	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/19/17 10:50	BWS	TAL PEN

Client Sample ID: MW-105
Date Collected: 12/19/17 19:50
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380738	12/21/17 17:26	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	381153	12/27/17 12:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	381123	12/27/17 10:20	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/19/17 19:50	BWS	TAL PEN

Client Sample ID: MW-109
Date Collected: 12/19/17 13:42
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380738	12/21/17 17:31	DRE	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #1

Client Sample ID: MW-109
Date Collected: 12/19/17 13:42
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-4
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		1	381123	12/27/17 09:59	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/19/17 13:42	BWS	TAL PEN

Client Sample ID: MW-110
Date Collected: 12/19/17 15:36
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380738	12/21/17 17:35	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	380738	12/21/17 17:40	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	381153	12/27/17 12:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	381123	12/27/17 10:39	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/19/17 15:36	BWS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 12/19/17 14:36
Date Received: 12/20/17 09:26

Lab Sample ID: 400-147542-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380738	12/21/17 17:44	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		380558	12/21/17 09:17	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	380738	12/21/17 17:53	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	381153	12/27/17 12:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	381123	12/27/17 10:57	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 380558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-1	MW-103	Total Recoverable	Water	3005A	
400-147542-2 - DL	MW-104	Total Recoverable	Water	3005A	
400-147542-2	MW-104	Total Recoverable	Water	3005A	
400-147542-3	MW-105	Total Recoverable	Water	3005A	
400-147542-4	MW-109	Total Recoverable	Water	3005A	
400-147542-5	MW-110	Total Recoverable	Water	3005A	
400-147542-5 - DL	MW-110	Total Recoverable	Water	3005A	
400-147542-6	DUP-01	Total Recoverable	Water	3005A	
400-147542-6 - DL	DUP-01	Total Recoverable	Water	3005A	
MB 400-380558/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-380558/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-147542-1 MS	MW-103	Total Recoverable	Water	3005A	
400-147542-1 MSD	MW-103	Total Recoverable	Water	3005A	

Analysis Batch: 380738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-1	MW-103	Total Recoverable	Water	6020	380558
400-147542-2	MW-104	Total Recoverable	Water	6020	380558
400-147542-2 - DL	MW-104	Total Recoverable	Water	6020	380558
400-147542-3	MW-105	Total Recoverable	Water	6020	380558
400-147542-4	MW-109	Total Recoverable	Water	6020	380558
400-147542-5	MW-110	Total Recoverable	Water	6020	380558
400-147542-5 - DL	MW-110	Total Recoverable	Water	6020	380558
400-147542-6	DUP-01	Total Recoverable	Water	6020	380558
400-147542-6 - DL	DUP-01	Total Recoverable	Water	6020	380558
MB 400-380558/1-A ^5	Method Blank	Total Recoverable	Water	6020	380558
LCS 400-380558/2-A	Lab Control Sample	Total Recoverable	Water	6020	380558
400-147542-1 MS	MW-103	Total Recoverable	Water	6020	380558
400-147542-1 MSD	MW-103	Total Recoverable	Water	6020	380558

General Chemistry

Analysis Batch: 380877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-1	MW-103	Total/NA	Water	SM 2540C	
400-147542-2	MW-104	Total/NA	Water	SM 2540C	
400-147542-3	MW-105	Total/NA	Water	SM 2540C	
400-147542-5	MW-110	Total/NA	Water	SM 2540C	
400-147542-6	DUP-01	Total/NA	Water	SM 2540C	
MB 400-380877/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-380877/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-147542-2 DU	MW-104	Total/NA	Water	SM 2540C	

Analysis Batch: 381024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-1	MW-103	Total/NA	Water	SM 4500 Cl- E	
MB 400-381024/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-381024/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-381024/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-147652-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 381024 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147652-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 381123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-1	MW-103	Total/NA	Water	SM 4500 SO4 E	
400-147542-2	MW-104	Total/NA	Water	SM 4500 SO4 E	
400-147542-3	MW-105	Total/NA	Water	SM 4500 SO4 E	
400-147542-4	MW-109	Total/NA	Water	SM 4500 SO4 E	
400-147542-5	MW-110	Total/NA	Water	SM 4500 SO4 E	
400-147542-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-381123/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-381123/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-381123/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-147640-B-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-147640-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-147640-B-6 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-147640-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 381153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-2	MW-104	Total/NA	Water	SM 4500 Cl- E	
400-147542-3	MW-105	Total/NA	Water	SM 4500 Cl- E	
400-147542-5	MW-110	Total/NA	Water	SM 4500 Cl- E	
400-147542-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-381153/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-381153/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-381153/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-147641-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-147641-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 381497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-2	MW-104	Total/NA	Water	SM 4500 F C	
MB 400-381497/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-381497/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-147542-2 MS	MW-104	Total/NA	Water	SM 4500 F C	
400-147542-2 MSD	MW-104	Total/NA	Water	SM 4500 F C	
400-147641-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 381802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147542-1	MW-103	Total/NA	Water	Field Sampling	
400-147542-2	MW-104	Total/NA	Water	Field Sampling	
400-147542-3	MW-105	Total/NA	Water	Field Sampling	
400-147542-4	MW-109	Total/NA	Water	Field Sampling	
400-147542-5	MW-110	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-380558/1-A ^5
Matrix: Water
Analysis Batch: 380738

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 380558

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		12/21/17 09:17	12/21/17 16:18	5
Calcium	0.13	U	0.25	0.13	mg/L		12/21/17 09:17	12/21/17 16:18	5

Lab Sample ID: LCS 400-380558/2-A
Matrix: Water
Analysis Batch: 380738

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 380558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.106		mg/L		106	80 - 120
Calcium	5.00	5.38		mg/L		108	80 - 120

Lab Sample ID: 400-147542-1 MS
Matrix: Water
Analysis Batch: 380738

Client Sample ID: MW-103
Prep Type: Total Recoverable
Prep Batch: 380558

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.35		0.100	0.476		mg/L		122	75 - 125
Calcium	3.7		5.00	9.35		mg/L		113	75 - 125

Lab Sample ID: 400-147542-1 MSD
Matrix: Water
Analysis Batch: 380738

Client Sample ID: MW-103
Prep Type: Total Recoverable
Prep Batch: 380558

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.35		0.100	0.470		mg/L		117	75 - 125	1	20
Calcium	3.7		5.00	9.17		mg/L		109	75 - 125	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-380877/1
Matrix: Water
Analysis Batch: 380877

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			12/23/17 16:35	1

Lab Sample ID: LCS 400-380877/2
Matrix: Water
Analysis Batch: 380877

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	280		mg/L		96	78 - 122

Lab Sample ID: 400-147542-2 DU
Matrix: Water
Analysis Batch: 380877

Client Sample ID: MW-104
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	900		898		mg/L		0.2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-381024/6
Matrix: Water
Analysis Batch: 381024

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			12/26/17 10:25	1

Lab Sample ID: LCS 400-381024/7
Matrix: Water
Analysis Batch: 381024

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	31.0		mg/L		103	90 - 110

Lab Sample ID: MRL 400-381024/3
Matrix: Water
Analysis Batch: 381024

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	2.10		mg/L		105	50 - 150

Lab Sample ID: 400-147652-A-1 MS
Matrix: Water
Analysis Batch: 381024

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	47		10.0	53.5	J3	mg/L		63	73 - 120

Lab Sample ID: 400-147652-A-1 MSD
Matrix: Water
Analysis Batch: 381024

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	47		10.0	53.6	J3	mg/L		63	73 - 120	0	8

Lab Sample ID: MB 400-381153/6
Matrix: Water
Analysis Batch: 381153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			12/27/17 12:10	1

Lab Sample ID: LCS 400-381153/7
Matrix: Water
Analysis Batch: 381153

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	30.1		mg/L		100	90 - 110

Lab Sample ID: MRL 400-381153/3
Matrix: Water
Analysis Batch: 381153

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	2.18		mg/L		109	50 - 150

Lab Sample ID: 400-147641-B-4 MS
Matrix: Water
Analysis Batch: 381153

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	7.6		10.0	18.6		mg/L		110	73 - 120		

Lab Sample ID: 400-147641-B-4 MSD
Matrix: Water
Analysis Batch: 381153

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	7.6		10.0	18.6		mg/L		110	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-381497/3
Matrix: Water
Analysis Batch: 381497

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			12/29/17 11:40	1

Lab Sample ID: LCS 400-381497/4
Matrix: Water
Analysis Batch: 381497

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	3.91		mg/L		98	90 - 110		

Lab Sample ID: 400-147542-2 MS
Matrix: Water
Analysis Batch: 381497

Client Sample ID: MW-104
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	1.17		mg/L		91	75 - 125		

Lab Sample ID: 400-147542-2 MSD
Matrix: Water
Analysis Batch: 381497

Client Sample ID: MW-104
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	1.17		mg/L		91	75 - 125	0	4

Lab Sample ID: 400-147641-A-5 DU
Matrix: Water
Analysis Batch: 381497

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.10			0.100		mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-381123/6
Matrix: Water
Analysis Batch: 381123

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			12/27/17 09:41	1

Lab Sample ID: LCS 400-381123/7
Matrix: Water
Analysis Batch: 381123

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	14.6		mg/L		97	90 - 110		

Lab Sample ID: MRL 400-381123/3
Matrix: Water
Analysis Batch: 381123

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	3.94	I	mg/L		79	50 - 150		

Lab Sample ID: 400-147640-B-2 MS
Matrix: Water
Analysis Batch: 381123

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		100	221	J3	mg/L		8	77 - 128		

Lab Sample ID: 400-147640-B-2 MSD
Matrix: Water
Analysis Batch: 381123

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		100	217	J3	mg/L		3	77 - 128	2	5

Lab Sample ID: 400-147640-B-6 MS
Matrix: Water
Analysis Batch: 381123

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	16		10.0	25.8		mg/L		96	77 - 128		

Lab Sample ID: 400-147640-B-6 MSD
Matrix: Water
Analysis Batch: 381123

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	16		10.0	25.6		mg/L		94	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: Rick Hugendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-70104-28294.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-147542 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)	2540C - TDS	SM4500_Cl_E - Chloride	SM4500_SO4_E - Sulfate	4500_F_C - Fluoride	6020 - Boron & Calcium	6020 - Calcium	Field Sampling PH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	D	D	N		
MW-103	12-19-17	0922	G	Water			X	X	X		X			2	
MW-104	12-19-17	1050	G	Water			X	X	X	X	X			2	
MW-105	12-19-17	1950	G	Water			X	X	X		X			2	
MW-109	12-19-17	1342	G	Water					X			X		2	
MW-110	12-19-17	1536	G	Water			X	X	X		X			2	
DUP-01	12-19-17	1436	G	Water			X	X	X		X			2	
				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:

	Date/Time	Company		Date/Time	Company
Relinquished by:	12-20-17 / 9am	RDH SW.	Received by:	12-20-17 / 9am	RDH
Relinquished by:	12/20/17 / 9:26am	RDH	Received by:	12/20/17 9:26	
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: 0.3 °C IR

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-147542-1
SDG Number: Plant Crist Landfill #1

Login Number: 147542
List Number: 1
Creator: Perez, Trina M

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	0.8°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 Plant Crist

TestAmerica Job ID: 400-147542-1
SDG: Plant Crist Landfill #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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	12-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17 *
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-147640-1
TestAmerica SDG: Plant Crist Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
1/3/2018 5:37:23 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 11
Chronicle 12
QC Association 15
QC Sample Results 18
Chain of Custody 23
Receipt Checklists 24
Certification Summary 25

Job ID: 400-147640-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-147640-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-147640-1), MW-201 (400-147640-2), MW-204 (400-147640-5), MW-206 (400-147640-7), (400-147640-C-1-B MS) and (400-147640-C-1-C MSD). Elevated reporting limits (RLs) are provided.

Method(s) 6020: Due to the high concentration of Boron and Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 380733 and analytical batch 380993 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

General Chemistry
Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-147640-1), MW-204 (400-147640-5) and MW-206 (400-147640-7). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 381123 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-200 (400-147640-1), MW-201 (400-147640-2), MW-203 (400-147640-4), MW-204 (400-147640-5), MW-206 (400-147640-7), (400-147640-B-2 MS) and (400-147640-B-2 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-147640-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	16		2.0	0.84	mg/L	200		6020	Total Recoverable
Calcium - DL	420		10	5.0	mg/L	200		6020	Total Recoverable
Total Dissolved Solids	1900		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	810		40	12	mg/L	20		SM 4500 Cl- E	Total/NA
Sulfate	230		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.94				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-147640-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	4.9		1.0	0.42	mg/L	100		6020	Total Recoverable
Calcium - DL	82		5.0	2.5	mg/L	100		6020	Total Recoverable
Total Dissolved Solids	590		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	110		10	3.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.88		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	210		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.94				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-147640-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.048	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	20		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.62				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-147640-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.87		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	28		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	15		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	88		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.66				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-147640-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	5.9		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	76		2.5	1.3	mg/L	50		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-147640-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	640		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	72		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.31		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	350		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.34				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-147640-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Sulfate	16		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-147640-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	51		5.0	2.1	mg/L	500		6020	Total Recoverable
Calcium - DL	1200		25	13	mg/L	500		6020	Total Recoverable
Total Dissolved Solids	7000		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	2400		120	36	mg/L	60		SM 4500 Cl- E	Total/NA
Fluoride	0.080	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	470		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.31				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-147640-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	78		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-02 — Lab Sample ID: 400-147640-9

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

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

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 Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-147640-1	MW-200	Water	12/20/17 13:30	12/21/17 08:10
400-147640-2	MW-201	Water	12/20/17 10:02	12/21/17 08:10
400-147640-3	MW-202	Water	12/20/17 08:37	12/21/17 08:10
400-147640-4	MW-203	Water	12/20/17 16:04	12/21/17 08:10
400-147640-5	MW-204	Water	12/20/17 17:30	12/21/17 08:10
400-147640-6	MW-205	Water	12/20/17 12:10	12/21/17 08:10
400-147640-7	MW-206	Water	12/20/17 11:15	12/21/17 08:10
400-147640-8	DUP-03	Water	12/20/17 11:10	12/21/17 08:10
400-147640-9	EB-02	Water	12/20/17 16:27	12/21/17 08:10

Client Sample ID: MW-200

Date Collected: 12/20/17 13:30
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-1

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	16		2.0	0.84	mg/L		12/22/17 09:43	12/22/17 20:13	200
Calcium	420		10	5.0	mg/L		12/22/17 09:43	12/22/17 20:13	200

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1900		25	17	mg/L			12/23/17 16:35	1
Chloride	810		40	12	mg/L			12/27/17 13:23	20
Sulfate	230		50	14	mg/L			12/27/17 10:57	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.94				SU			12/20/17 13:30	1

Client Sample ID: MW-201

Date Collected: 12/20/17 10:02
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-2

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.9		1.0	0.42	mg/L		12/22/17 09:43	12/22/17 20:26	100
Calcium	82		5.0	2.5	mg/L		12/22/17 09:43	12/22/17 20:26	100

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	590		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	110		10	3.0	mg/L			12/27/17 12:51	5
Fluoride	0.88		0.10	0.032	mg/L			12/29/17 12:09	1
Sulfate	210		50	14	mg/L			12/27/17 10:53	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.94				SU			12/20/17 10:02	1

Client Sample ID: MW-202

Date Collected: 12/20/17 08:37
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-3

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.048	I	0.050	0.021	mg/L		12/22/17 09:43	12/22/17 21:02	5
Calcium	4.8		0.25	0.13	mg/L		12/22/17 09:43	12/22/17 21:02	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			12/23/17 16:35	1
Chloride	20		2.0	0.60	mg/L			12/27/17 12:26	1
Sulfate	8.0		5.0	1.4	mg/L			12/27/17 10:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.62				SU			12/20/17 08:37	1

Client Sample ID: MW-203

Date Collected: 12/20/17 16:04
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.87		0.050	0.021	mg/L		12/22/17 09:43	12/22/17 20:31	5
Calcium	28		0.25	0.13	mg/L		12/22/17 09:43	12/22/17 20:31	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			12/26/17 16:04	1
Chloride	15		2.0	0.60	mg/L			12/27/17 12:41	1
Sulfate	88		25	7.0	mg/L			12/27/17 10:44	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.66				SU			12/20/17 16:04	1

Client Sample ID: MW-204

Date Collected: 12/20/17 17:30
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.9		0.50	0.21	mg/L		12/22/17 09:43	12/22/17 21:16	50
Calcium	76		2.5	1.3	mg/L		12/22/17 09:43	12/22/17 21:16	50

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	640		5.0	3.4	mg/L			12/26/17 16:04	1
Chloride	72		4.0	1.2	mg/L			12/27/17 13:08	2
Fluoride	0.31		0.10	0.032	mg/L			12/29/17 12:13	1
Sulfate	350		100	28	mg/L			12/27/17 10:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.34				SU			12/20/17 17:30	1

Client Sample ID: MW-205

Date Collected: 12/20/17 12:10
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	21		0.25	0.13	mg/L		12/22/17 09:43	12/22/17 20:35	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			12/26/17 16:04	1
Sulfate	16		5.0	1.4	mg/L			12/27/17 09:57	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.71				SU			12/20/17 12:10	1

Client Sample ID: MW-206

Lab Sample ID: 400-147640-7
Date Collected: 12/20/17 11:15
Matrix: Water
Date Received: 12/21/17 08:10

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	51		5.0	2.1	mg/L		12/22/17 09:43	12/22/17 21:20	500
Calcium	1200		25	13	mg/L		12/22/17 09:43	12/22/17 21:20	500

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7000		25	17	mg/L			12/26/17 16:04	1
Chloride	2400		120	36	mg/L			12/27/17 13:10	60
Fluoride	0.080	I	0.10	0.032	mg/L			12/29/17 12:17	1
Sulfate	470		100	28	mg/L			12/27/17 10:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.31				SU			12/20/17 11:15	1

Client Sample ID: DUP-03

Lab Sample ID: 400-147640-8
Date Collected: 12/20/17 11:10
Matrix: Water
Date Received: 12/21/17 08:10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	21		0.25	0.13	mg/L		12/22/17 09:43	12/22/17 22:05	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	78		5.0	3.4	mg/L			12/26/17 16:04	1
Sulfate	15		5.0	1.4	mg/L			12/27/17 10:14	1

Client Sample ID: EB-02

Lab Sample ID: 400-147640-9
Date Collected: 12/20/17 16:27
Matrix: Water
Date Received: 12/21/17 08:10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		12/22/17 09:43	12/22/17 20:08	5
Calcium	0.13	U	0.25	0.13	mg/L		12/22/17 09:43	12/22/17 20:08	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			12/26/17 16:04	1
Chloride	0.60	U	2.0	0.60	mg/L			12/27/17 12:41	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/29/17 12:21	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/27/17 10:16	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Qualifiers

Metals

Qualifier	Qualifier Description
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.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
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.
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 Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 12/20/17 13:30
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	200	380993	12/22/17 20:13	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	381153	12/27/17 13:23	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	381123	12/27/17 10:57	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 13:30	BWS	TAL PEN

Client Sample ID: MW-201
Date Collected: 12/20/17 10:02
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	100	380993	12/22/17 20:26	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	381153	12/27/17 12:51	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:09	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	381123	12/27/17 10:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 10:02	BWS	TAL PEN

Client Sample ID: MW-202
Date Collected: 12/20/17 08:37
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 21:02	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	380877	12/23/17 16:35	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	381123	12/27/17 10:14	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 08:37	BWS	TAL PEN

Client Sample ID: MW-203
Date Collected: 12/20/17 16:04
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 20:31	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:41	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Client Sample ID: MW-203
Date Collected: 12/20/17 16:04
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-4
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		5	381123	12/27/17 10:44	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 16:04	BWS	TAL PEN

Client Sample ID: MW-204
Date Collected: 12/20/17 17:30
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	380993	12/22/17 21:16	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	381153	12/27/17 13:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:13	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	381123	12/27/17 10:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 17:30	BWS	TAL PEN

Client Sample ID: MW-205
Date Collected: 12/20/17 12:10
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 20:35	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	381123	12/27/17 09:57	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 12:10	BWS	TAL PEN

Client Sample ID: MW-206
Date Collected: 12/20/17 11:15
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	500	380993	12/22/17 21:20	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		60	381153	12/27/17 13:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	381123	12/27/17 10:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 11:15	BWS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Client Sample ID: DUP-03

Date Collected: 12/20/17 11:10
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 22:05	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	381123	12/27/17 10:14	RRC	TAL PEN

Client Sample ID: EB-02

Date Collected: 12/20/17 16:27
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147640-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 20:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	381123	12/27/17 10:16	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 380733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-147640-2 - DL	MW-201	Total Recoverable	Water	3005A	
400-147640-3	MW-202	Total Recoverable	Water	3005A	
400-147640-4	MW-203	Total Recoverable	Water	3005A	
400-147640-5 - DL	MW-204	Total Recoverable	Water	3005A	
400-147640-6	MW-205	Total Recoverable	Water	3005A	
400-147640-7 - DL	MW-206	Total Recoverable	Water	3005A	
400-147640-8	DUP-03	Total Recoverable	Water	3005A	
400-147640-9	EB-02	Total Recoverable	Water	3005A	
MB 400-380733/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-380733/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-147640-1 MS - DL	MW-200	Total Recoverable	Water	3005A	
400-147640-1 MSD - DL	MW-200	Total Recoverable	Water	3005A	

Analysis Batch: 380993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-1 - DL	MW-200	Total Recoverable	Water	6020	380733
400-147640-2 - DL	MW-201	Total Recoverable	Water	6020	380733
400-147640-3	MW-202	Total Recoverable	Water	6020	380733
400-147640-4	MW-203	Total Recoverable	Water	6020	380733
400-147640-5 - DL	MW-204	Total Recoverable	Water	6020	380733
400-147640-6	MW-205	Total Recoverable	Water	6020	380733
400-147640-7 - DL	MW-206	Total Recoverable	Water	6020	380733
400-147640-8	DUP-03	Total Recoverable	Water	6020	380733
400-147640-9	EB-02	Total Recoverable	Water	6020	380733
MB 400-380733/1-A ^5	Method Blank	Total Recoverable	Water	6020	380733
LCS 400-380733/2-A	Lab Control Sample	Total Recoverable	Water	6020	380733
400-147640-1 MS - DL	MW-200	Total Recoverable	Water	6020	380733
400-147640-1 MSD - DL	MW-200	Total Recoverable	Water	6020	380733

General Chemistry

Analysis Batch: 380877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-1	MW-200	Total/NA	Water	SM 2540C	
400-147640-2	MW-201	Total/NA	Water	SM 2540C	
400-147640-3	MW-202	Total/NA	Water	SM 2540C	
MB 400-380877/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-380877/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-147542-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	
400-147550-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 381006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-4	MW-203	Total/NA	Water	SM 2540C	
400-147640-5	MW-204	Total/NA	Water	SM 2540C	
400-147640-6	MW-205	Total/NA	Water	SM 2540C	
400-147640-7	MW-206	Total/NA	Water	SM 2540C	
400-147640-8	DUP-03	Total/NA	Water	SM 2540C	
400-147640-9	EB-02	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 381006 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-381006/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-381006/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-147640-4 DU	MW-203	Total/NA	Water	SM 2540C	

Analysis Batch: 381123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-147640-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-147640-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-147640-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-147640-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-147640-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-147640-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-147640-8	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-147640-9	EB-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-381123/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-381123/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-381123/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-147640-2 MS	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-147640-2 MSD	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-147640-6 MS	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-147640-6 MSD	MW-205	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 381153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-147640-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-147640-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-147640-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-147640-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-147640-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-147640-9	EB-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-381153/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-381153/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-381153/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-147641-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-147641-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-147641-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-147641-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 381497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-2	MW-201	Total/NA	Water	SM 4500 F C	
400-147640-5	MW-204	Total/NA	Water	SM 4500 F C	
400-147640-7	MW-206	Total/NA	Water	SM 4500 F C	
400-147640-9	EB-02	Total/NA	Water	SM 4500 F C	
MB 400-381497/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-381497/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-147542-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-147542-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-147641-A-5 DU	Duplicate	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

Field Service / Mobile Lab

Analysis Batch: 381802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147640-1	MW-200	Total/NA	Water	Field Sampling	
400-147640-2	MW-201	Total/NA	Water	Field Sampling	
400-147640-3	MW-202	Total/NA	Water	Field Sampling	
400-147640-4	MW-203	Total/NA	Water	Field Sampling	
400-147640-5	MW-204	Total/NA	Water	Field Sampling	
400-147640-6	MW-205	Total/NA	Water	Field Sampling	
400-147640-7	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-380733/1-A ^5
Matrix: Water
Analysis Batch: 380993

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		12/22/17 09:43	12/22/17 19:50	5
Calcium	0.13	U	0.25	0.13	mg/L		12/22/17 09:43	12/22/17 19:50	5

Lab Sample ID: LCS 400-380733/2-A
Matrix: Water
Analysis Batch: 380993

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0975		mg/L		98	80 - 120
Calcium	5.00	5.10		mg/L		102	80 - 120

Method: 6020 - Metals (ICP/MS) - DL

Lab Sample ID: 400-147640-1 MS
Matrix: Water
Analysis Batch: 380993

Client Sample ID: MW-200
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron - DL	16		0.100	15.7	J3	mg/L		207	75 - 125
Calcium - DL	420		5.00	431		mg/L		124	75 - 125

Lab Sample ID: 400-147640-1 MSD
Matrix: Water
Analysis Batch: 380993

Client Sample ID: MW-200
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron - DL	16		0.100	16.2	J3	mg/L		624	75 - 125	3	20
Calcium - DL	420		5.00	435	J3	mg/L		209	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-380877/1
Matrix: Water
Analysis Batch: 380877

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			12/23/17 16:35	1

Lab Sample ID: LCS 400-380877/2
Matrix: Water
Analysis Batch: 380877

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	280		mg/L		96	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-147542-A-2 DU
Matrix: Water
Analysis Batch: 380877

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	900			898		mg/L				0.2	5

Lab Sample ID: 400-147550-C-1 DU
Matrix: Water
Analysis Batch: 380877

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	160			162		mg/L				0	5

Lab Sample ID: MB 400-381006/1
Matrix: Water
Analysis Batch: 381006

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			12/26/17 16:04	1

Lab Sample ID: LCS 400-381006/2
Matrix: Water
Analysis Batch: 381006

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	280		mg/L		96	78 - 122		

Lab Sample ID: 400-147640-4 DU
Matrix: Water
Analysis Batch: 381006

Client Sample ID: MW-203
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	150			146		mg/L				1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-381153/6
Matrix: Water
Analysis Batch: 381153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			12/27/17 12:10	1

Lab Sample ID: LCS 400-381153/7
Matrix: Water
Analysis Batch: 381153

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	30.1		mg/L		100	90 - 110		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MRL 400-381153/3
Matrix: Water
Analysis Batch: 381153

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	2.18		mg/L		109	50 - 150

Lab Sample ID: 400-147641-B-1 MS
Matrix: Water
Analysis Batch: 381153

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	8.8		10.0	19.6		mg/L		107	73 - 120

Lab Sample ID: 400-147641-B-1 MSD
Matrix: Water
Analysis Batch: 381153

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	8.8		10.0	19.5		mg/L		107	73 - 120	0	8

Lab Sample ID: 400-147641-B-4 MS
Matrix: Water
Analysis Batch: 381153

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	7.6		10.0	18.6		mg/L		110	73 - 120

Lab Sample ID: 400-147641-B-4 MSD
Matrix: Water
Analysis Batch: 381153

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	7.6		10.0	18.6		mg/L		110	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-381497/3
Matrix: Water
Analysis Batch: 381497

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			12/29/17 11:40	1

Lab Sample ID: LCS 400-381497/4
Matrix: Water
Analysis Batch: 381497

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	3.91		mg/L		98	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-147542-A-2 MS
Matrix: Water
Analysis Batch: 381497

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	1.17		mg/L		91	75 - 125

Lab Sample ID: 400-147542-A-2 MSD
Matrix: Water
Analysis Batch: 381497

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	1.17		mg/L		91	75 - 125	0	4

Lab Sample ID: 400-147641-A-5 DU
Matrix: Water
Analysis Batch: 381497

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.10		0.100		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-381123/6
Matrix: Water
Analysis Batch: 381123

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			12/27/17 09:41	1

Lab Sample ID: LCS 400-381123/7
Matrix: Water
Analysis Batch: 381123

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	14.6		mg/L		97	90 - 110

Lab Sample ID: MRL 400-381123/3
Matrix: Water
Analysis Batch: 381123

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	3.94	I	mg/L		79	50 - 150

Lab Sample ID: 400-147640-2 MS
Matrix: Water
Analysis Batch: 381123

Client Sample ID: MW-201
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	210		100	221	J3	mg/L		8	77 - 128

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-147640-2 MSD
Matrix: Water
Analysis Batch: 381123

Client Sample ID: MW-201
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		100	217	J3	mg/L		3	77 - 128	2	5

Lab Sample ID: 400-147640-6 MS
Matrix: Water
Analysis Batch: 381123

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	16		10.0	25.8		mg/L		96	77 - 128		

Lab Sample ID: 400-147640-6 MSD
Matrix: Water
Analysis Batch: 381123

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	16		10.0	25.6		mg/L		94	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: Rick Hayendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-70104-28294.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-147640 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)	2540C - TDS	SM4500_Cl_E - Chloride	SM4500_SO4_E - Sulfate	4500_F_C - Fluoride	6020 - Boron & Calcium	6020 - Calcium	Field Sampling PH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	D	D	N		
MW-200	12-20-17	1330	G	Water			X	X	X		X				
MW-201		1002		Water			X	X	X	X	X				
MW-202		0837		Water			X	X	X		X				
MW-203		1604		Water			X	X	X		X				
MW-204		1730		Water			X	X	X	X	X				
MW-205		1210		Water			X		X			X			
MW-206		1115		Water			X	X	X	X	X				
Dup-03		1110		Water			X		X			X			
EB-02	PDK	1627		Water			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
1		12-21-17 0810	MH ENV.		12/21/17 810	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 2.7°C IR7

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-147640-1
SDG Number: Plant Crist Gypsum Storage Area

Login Number: 147640
List Number: 1
Creator: Johnson, Jeremy N

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	2.7°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 Plant Crist

TestAmerica Job ID: 400-147640-1
SDG: Plant Crist Gypsum Storage Area

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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	12-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17 *
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-147641-1
TestAmerica Sample Delivery Group: Plant Crist Landfill #2
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne Whitmire

Authorized for release by:
1/3/2018 5:53:21 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

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.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 11
Chronicle 12
QC Association 14
QC Sample Results 16
Chain of Custody 20
Receipt Checklists 21
Certification Summary 22

Job ID: 400-147641-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-147641-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-303 (400-147641-2), MW-304 (400-147641-3), (400-147640-C-1-A ^20), (400-147640-C-1-B MS), (400-147640-C-1-C MSD), MW-308 (400-147641-5) and DUP-02 (400-147641-6). Elevated reporting limits (RLs) are provided.

Method(s) 6020: Due to the high concentration of Boron and Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 380733 and analytical batch 380993 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

General Chemistry
Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-304 (400-147641-3), MW-308 (400-147641-5) and DUP-02 (400-147641-6). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 381353 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-303 (400-147641-2), MW-304 (400-147641-3), MW-308 (400-147641-5), DUP-02 (400-147641-6), (400-147641-A-2 MS) and (400-147641-A-2 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

Client Sample ID: MW-300 — Lab Sample ID: 400-147641-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-303 — Lab Sample ID: 400-147641-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	2.0		0.25	0.11	mg/L	25		6020	Total Recoverable
Calcium - DL	44		1.3	0.63	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	150		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	22		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.25		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	85		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	6.99				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-304 — Lab Sample ID: 400-147641-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	3.0		0.10	0.042	mg/L	10		6020	Total Recoverable
Calcium - DL	120		0.50	0.25	mg/L	10		6020	Total Recoverable
Total Dissolved Solids	830		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	79		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Sulfate	400		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	5.86				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-305 — Lab Sample ID: 400-147641-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-308 — Lab Sample ID: 400-147641-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	65		0.25	0.13	mg/L	5		6020	Total Recoverable
Boron - DL	3.0		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	410		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	63		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	170		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	6.07				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-147641-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	2.9		0.10	0.042	mg/L	10		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

Client Sample ID: DUP-02 (Continued) — Lab Sample ID: 400-147641-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	120		0.50	0.25	mg/L	10		6020	Total Recoverable
Total Dissolved Solids	830		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	79		4.0	1.2	mg/L	2		SM 4500 Cl- E	Total/NA
Sulfate	390		100	28	mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-147641-7

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

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

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 Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-147641-1	MW-300	Water	12/20/17 08:01	12/21/17 08:10
400-147641-2	MW-303	Water	12/20/17 12:57	12/21/17 08:10
400-147641-3	MW-304	Water	12/20/17 10:41	12/21/17 08:10
400-147641-4	MW-305	Water	12/20/17 09:35	12/21/17 08:10
400-147641-5	MW-308	Water	12/20/17 11:42	12/21/17 08:10
400-147641-6	DUP-02	Water	12/20/17 09:41	12/21/17 08:10
400-147641-7	EB-01	Water	12/20/17 13:01	12/21/17 08:10

Client Sample ID: MW-300

Date Collected: 12/20/17 08:01
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.8		2.0	0.60	mg/L			12/27/17 12:24	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.63				SU			12/20/17 08:01	1

Client Sample ID: MW-303

Date Collected: 12/20/17 12:57
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-2

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.25	0.11	mg/L		12/22/17 09:43	12/22/17 21:25	25
Calcium	44		1.3	0.63	mg/L		12/22/17 09:43	12/22/17 21:25	25

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	150		5.0	3.4	mg/L			12/26/17 16:04	1
Chloride	22		2.0	0.60	mg/L			12/27/17 12:41	1
Fluoride	0.25		0.10	0.032	mg/L			12/29/17 12:23	1
Sulfate	85		25	7.0	mg/L			12/28/17 13:49	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.99				SU			12/20/17 12:57	1

Client Sample ID: MW-304

Date Collected: 12/20/17 10:41
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-3

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.0		0.10	0.042	mg/L		12/22/17 09:43	12/22/17 21:29	10
Calcium	120		0.50	0.25	mg/L		12/22/17 09:43	12/22/17 21:29	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		5.0	3.4	mg/L			12/26/17 16:04	1
Chloride	79		4.0	1.2	mg/L			12/27/17 13:10	2
Sulfate	400		100	28	mg/L			12/28/17 13:49	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.86				SU			12/20/17 10:41	1

Client Sample ID: MW-305

Lab Sample ID: 400-147641-4
Date Collected: 12/20/17 09:35
Matrix: Water
Date Received: 12/21/17 08:10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		2.0	0.60	mg/L			12/27/17 12:41	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.87				SU			12/20/17 09:35	1

Client Sample ID: MW-308

Lab Sample ID: 400-147641-5
Date Collected: 12/20/17 11:42
Matrix: Water
Date Received: 12/21/17 08:10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	65		0.25	0.13	mg/L		12/22/17 09:43	12/22/17 21:34	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		12/22/17 09:43	12/26/17 14:57	25

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		5.0	3.4	mg/L			12/26/17 16:04	1
Chloride	63		4.0	1.2	mg/L			12/27/17 13:10	2
Fluoride	0.10		0.10	0.032	mg/L			12/29/17 12:32	1
Sulfate	170		25	7.0	mg/L			12/28/17 14:03	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.07				SU			12/20/17 11:42	1

Client Sample ID: DUP-02

Lab Sample ID: 400-147641-6
Date Collected: 12/20/17 09:41
Matrix: Water
Date Received: 12/21/17 08:10

Method: 6020 - Metals (ICP/MS) - Total Recoverable - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.9		0.10	0.042	mg/L		12/22/17 09:43	12/26/17 15:02	10
Calcium	120		0.50	0.25	mg/L		12/22/17 09:43	12/26/17 15:02	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		5.0	3.4	mg/L			12/26/17 16:04	1
Chloride	79		4.0	1.2	mg/L			12/27/17 13:10	2
Sulfate	390		100	28	mg/L			12/28/17 13:52	20

Client Sample ID: EB-01

Lab Sample ID: 400-147641-7
Date Collected: 12/20/17 13:01
Matrix: Water
Date Received: 12/21/17 08:10

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		12/22/17 09:43	12/22/17 20:04	5

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

Client Sample ID: EB-01
Date Collected: 12/20/17 13:01
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.13	U	0.25	0.13	mg/L		12/22/17 09:43	12/22/17 20:04	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			12/26/17 16:04	1
Chloride	0.60	U	2.0	0.60	mg/L			12/27/17 12:42	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/29/17 12:38	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/28/17 13:36	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

Qualifiers

Metals

Qualifier	Qualifier Description
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
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.
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 Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

Client Sample ID: MW-300
Date Collected: 12/20/17 08:01
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:24	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 08:01	BWS	TAL PEN

Client Sample ID: MW-303
Date Collected: 12/20/17 12:57
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	380993	12/22/17 21:25	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	381353	12/28/17 13:49	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 12:57	BWS	TAL PEN

Client Sample ID: MW-304
Date Collected: 12/20/17 10:41
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	10	380993	12/22/17 21:29	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	381153	12/27/17 13:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	381353	12/28/17 13:49	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 10:41	BWS	TAL PEN

Client Sample ID: MW-305
Date Collected: 12/20/17 09:35
Date Received: 12/21/17 08:10

Lab Sample ID: 400-147641-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:41	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 09:35	BWS	TAL PEN

Client Sample ID: MW-308

Lab Sample ID: 400-147641-5

Date Collected: 12/20/17 11:42

Matrix: Water

Date Received: 12/21/17 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 21:34	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	381303	12/26/17 14:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	381153	12/27/17 13:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:32	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	381353	12/28/17 14:03	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	381802	12/20/17 11:42	BWS	TAL PEN

Client Sample ID: DUP-02

Lab Sample ID: 400-147641-6

Date Collected: 12/20/17 09:41

Matrix: Water

Date Received: 12/21/17 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A	DL		380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	10	381303	12/26/17 15:02	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	381153	12/27/17 13:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	381353	12/28/17 13:52	RRC	TAL PEN

Client Sample ID: EB-01

Lab Sample ID: 400-147641-7

Date Collected: 12/20/17 13:01

Matrix: Water

Date Received: 12/21/17 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			380733	12/22/17 09:43	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	380993	12/22/17 20:04	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	381006	12/26/17 16:04	TET	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	381153	12/27/17 12:42	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	381497	12/29/17 12:38	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	381353	12/28/17 13:36	RRC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 380733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-2 - DL	MW-303	Total Recoverable	Water	3005A	
400-147641-3 - DL	MW-304	Total Recoverable	Water	3005A	
400-147641-5	MW-308	Total Recoverable	Water	3005A	
400-147641-5 - DL	MW-308	Total Recoverable	Water	3005A	
400-147641-6 - DL	DUP-02	Total Recoverable	Water	3005A	
400-147641-7	EB-01	Total Recoverable	Water	3005A	
MB 400-380733/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-380733/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-147640-C-1-B MS ^200	Matrix Spike	Total Recoverable	Water	3005A	
400-147640-C-1-C MSD ^20	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 380993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-2 - DL	MW-303	Total Recoverable	Water	6020	380733
400-147641-3 - DL	MW-304	Total Recoverable	Water	6020	380733
400-147641-5	MW-308	Total Recoverable	Water	6020	380733
400-147641-7	EB-01	Total Recoverable	Water	6020	380733
MB 400-380733/1-A ^5	Method Blank	Total Recoverable	Water	6020	380733
LCS 400-380733/2-A	Lab Control Sample	Total Recoverable	Water	6020	380733
400-147640-C-1-B MS ^200	Matrix Spike	Total Recoverable	Water	6020	380733
400-147640-C-1-C MSD ^20	Matrix Spike Duplicate	Total Recoverable	Water	6020	380733

Analysis Batch: 381303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-5 - DL	MW-308	Total Recoverable	Water	6020	380733
400-147641-6 - DL	DUP-02	Total Recoverable	Water	6020	380733

General Chemistry

Analysis Batch: 381006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-2	MW-303	Total/NA	Water	SM 2540C	
400-147641-3	MW-304	Total/NA	Water	SM 2540C	
400-147641-5	MW-308	Total/NA	Water	SM 2540C	
400-147641-6	DUP-02	Total/NA	Water	SM 2540C	
400-147641-7	EB-01	Total/NA	Water	SM 2540C	
MB 400-381006/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-381006/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-147640-B-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-147697-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 381153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-1	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-147641-2	MW-303	Total/NA	Water	SM 4500 Cl- E	
400-147641-3	MW-304	Total/NA	Water	SM 4500 Cl- E	
400-147641-4	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-147641-5	MW-308	Total/NA	Water	SM 4500 Cl- E	
400-147641-6	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-147641-7	EB-01	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 381153 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-381153/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-381153/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-381153/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-147641-1 MS	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-147641-1 MSD	MW-300	Total/NA	Water	SM 4500 Cl- E	
400-147641-4 MS	MW-305	Total/NA	Water	SM 4500 Cl- E	
400-147641-4 MSD	MW-305	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 381353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-2	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-147641-3	MW-304	Total/NA	Water	SM 4500 SO4 E	
400-147641-5	MW-308	Total/NA	Water	SM 4500 SO4 E	
400-147641-6	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-147641-7	EB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-381353/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-381353/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-381353/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-147641-2 MS	MW-303	Total/NA	Water	SM 4500 SO4 E	
400-147641-2 MSD	MW-303	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 381497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-2	MW-303	Total/NA	Water	SM 4500 F C	
400-147641-5	MW-308	Total/NA	Water	SM 4500 F C	
400-147641-7	EB-01	Total/NA	Water	SM 4500 F C	
MB 400-381497/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-381497/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-147542-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-147542-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-147641-5 DU	MW-308	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 381802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-147641-1	MW-300	Total/NA	Water	Field Sampling	
400-147641-2	MW-303	Total/NA	Water	Field Sampling	
400-147641-3	MW-304	Total/NA	Water	Field Sampling	
400-147641-4	MW-305	Total/NA	Water	Field Sampling	
400-147641-5	MW-308	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-380733/1-A ^5
Matrix: Water
Analysis Batch: 380993

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.021	U	0.050	0.021	mg/L		12/22/17 09:43	12/22/17 19:50	5
Calcium	0.13	U	0.25	0.13	mg/L		12/22/17 09:43	12/22/17 19:50	5

Lab Sample ID: LCS 400-380733/2-A
Matrix: Water
Analysis Batch: 380993

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0975		mg/L		98	80 - 120
Calcium	5.00	5.10		mg/L		102	80 - 120

Method: 6020 - Metals (ICP/MS) - DL

Lab Sample ID: 400-147640-C-1-B MS ^200
Matrix: Water
Analysis Batch: 380993

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron - DL	16		0.100	15.7	J3	mg/L		207	75 - 125
Calcium - DL	420		5.00	431		mg/L		124	75 - 125

Lab Sample ID: 400-147640-C-1-C MSD ^200
Matrix: Water
Analysis Batch: 380993

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 380733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron - DL	16		0.100	16.2	J3	mg/L		624	75 - 125	3	20
Calcium - DL	420		5.00	435	J3	mg/L		209	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-381006/1
Matrix: Water
Analysis Batch: 381006

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			12/26/17 16:04	1

Lab Sample ID: LCS 400-381006/2
Matrix: Water
Analysis Batch: 381006

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	280		mg/L		96	78 - 122

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 400-147640-B-4 DU
Matrix: Water
Analysis Batch: 381006

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	150		146		mg/L		1	5

Lab Sample ID: 400-147697-D-1 DU
Matrix: Water
Analysis Batch: 381006

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	240		242		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-381153/6
Matrix: Water
Analysis Batch: 381153

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.60	U	2.0	0.60	mg/L			12/27/17 12:10	1

Lab Sample ID: LCS 400-381153/7
Matrix: Water
Analysis Batch: 381153

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	30.1		mg/L		100	90 - 110

Lab Sample ID: MRL 400-381153/3
Matrix: Water
Analysis Batch: 381153

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	2.18		mg/L		109	50 - 150

Lab Sample ID: 400-147641-1 MS
Matrix: Water
Analysis Batch: 381153

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.8		10.0	19.6		mg/L		107	73 - 120

Lab Sample ID: 400-147641-1 MSD
Matrix: Water
Analysis Batch: 381153

Client Sample ID: MW-300
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.8		10.0	19.5		mg/L		107	73 - 120	0	8

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-147641-4 MS
Matrix: Water
Analysis Batch: 381153

Client Sample ID: MW-305
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.6		10.0	18.6		mg/L		110	73 - 120

Lab Sample ID: 400-147641-4 MSD
Matrix: Water
Analysis Batch: 381153

Client Sample ID: MW-305
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.6		10.0	18.6		mg/L		110	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-381497/3
Matrix: Water
Analysis Batch: 381497

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			12/29/17 11:40	1

Lab Sample ID: LCS 400-381497/4
Matrix: Water
Analysis Batch: 381497

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	3.91		mg/L		98	90 - 110

Lab Sample ID: 400-147542-A-2 MS
Matrix: Water
Analysis Batch: 381497

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	1.17		mg/L		91	75 - 125

Lab Sample ID: 400-147542-A-2 MSD
Matrix: Water
Analysis Batch: 381497

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	1.17		mg/L		91	75 - 125	0	4

Lab Sample ID: 400-147641-5 DU
Matrix: Water
Analysis Batch: 381497

Client Sample ID: MW-308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.10		0.100		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-381353/6
Matrix: Water
Analysis Batch: 381353

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			12/28/17 13:34	1

Lab Sample ID: LCS 400-381353/7
Matrix: Water
Analysis Batch: 381353

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	14.7		mg/L		98	90 - 110

Lab Sample ID: MRL 400-381353/3
Matrix: Water
Analysis Batch: 381353

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	4.00	I	mg/L		80	50 - 150

Lab Sample ID: 400-147641-2 MS
Matrix: Water
Analysis Batch: 381353

Client Sample ID: MW-303
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	85		50.0	91.3	J3	mg/L		13	77 - 128

Lab Sample ID: 400-147641-2 MSD
Matrix: Water
Analysis Batch: 381353

Client Sample ID: MW-303
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	85		50.0	91.3	J3	mg/L		13	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 Surles / Rick Huyendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-70104-28294.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
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 #: Purchase Order not required			
Email: krmitche@southernco.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site:	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)	2540C - TDS	SM4500_Cl_E - Chloride	SM4500_SO4_E - Sulfate	4500_F_C - Fluoride	6020 - Boron & Calcium	6020 - Calcium	Field Sampling PH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	D	D	N		
MW-300	12-20-17	0801	G	Water				X							
MW-303		1257		Water			X	X	X	X	X				
MW-304		1041		Water			X	X	X		X				
MW-305		0935		Water				X							
MW-308		1142		Water			X	X	X	X	X				
DUP-02		0941		Water			X	X	X		X				
EB-01	↓ ROH	1301	↓ ROH	Water			X	X	X	X	X				
				Water											
				Water											
				Water											
				Water											

400-147641 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
1		12-21-17 0810	ADH ENV.		12/21/17 0810	TA Pen
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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:

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-147641-1
SDG Number: Plant Crist Landfill #2

Login Number: 147641
List Number: 1
Creator: Johnson, Jeremy N

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	3.7°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 Plant Crist

TestAmerica Job ID: 400-147641-1
SDG: Plant Crist Landfill #2

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	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	12-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17 *
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

APPENDIX B
STATISTICAL ANALYSES

CCR LANDFILL NO. 1

Table B-1
Summary of Statistical Limits and Results
CCR Landfill No. 1

Well	Constituent	Upper Statistical Limit	Lower Statistical Limit	Initial Result	Statistically Significant	Verification Results	Verified Statistically Significant
MW-102	Boron	0.05	NA	ND	No	NA	NA
MW-103	Boron	0.05	NA	0.37	Yes	0.35	Yes
MW-104	Boron	0.05	NA	12	Yes	11	Yes
MW-105	Boron	0.05	NA	0.32	Yes	1.6	Yes
MW-106	Boron	0.05	NA	ND	No	NA	NA
MW-109	Boron	0.05	NA	0.047	No	NA	NA
MW-110	Boron	0.05	NA	2.3	Yes	5.3	Yes
MW-102	Calcium	1.483	NA	0.56	No	NA	NA
MW-103	Calcium	1.483	NA	4.3	Yes	3.7	Yes
MW-104	Calcium	1.483	NA	55	Yes	47	Yes
MW-105	Calcium	1.483	NA	58	Yes	69	Yes
MW-106	Calcium	1.483	NA	0.39	No	NA	NA
MW-109	Calcium	1.483	NA	3.7	Yes	3.1	Yes
MW-110	Calcium	1.483	NA	15	Yes	41	Yes
MW-102	Chloride	6.959	NA	6	No	NA	NA
MW-103	Chloride	6.959	NA	10	Yes	9.3	Yes
MW-104	Chloride	6.959	NA	120	Yes	84	Yes
MW-105	Chloride	6.959	NA	33	Yes	120	Yes
MW-106	Chloride	6.959	NA	4.5	No	NA	NA
MW-109	Chloride	6.959	NA	5.8	No	NA	NA
MW-110	Chloride	6.959	NA	62	Yes	180	Yes
MW-102	Field pH	7.11	4.5	4.56	No	NA	NA
MW-103	Field pH	7.11	4.5	5.07	No	NA	NA
MW-104	Field pH	7.11	4.5	3.79	Yes	4.10	Yes
MW-105	Field pH	7.11	4.5	6.07	No	NA	NA
MW-106	Field pH	7.11	4.5	4.77	No	NA	NA
MW-109	Field pH	7.11	4.5	4.52	No	4.76	No
MW-110	Field pH	7.11	4.5	5.73	No	NA	NA
MW-102	Fluoride	0.1	NA	ND	No	NA	NA

Table B-1
Summary of Statistical Limits and Results
CCR Landfill No. 1

Well	Constituent	Upper Statistical Limit	Lower Statistical Limit	Initial Result	Statistically Significant	Verification Results	Verified Statistically Significant
MW-103	Fluoride	0.1	NA	ND	No	NA	NA
MW-104	Fluoride	0.1	NA	0.22	Yes	0.26	Yes
MW-105	Fluoride	0.1	NA	ND	No	NA	NA
MW-106	Fluoride	0.1	NA	ND	No	NA	NA
MW-109	Fluoride	0.1	NA	ND	No	NA	NA
MW-110	Fluoride	0.1	NA	ND	No	NA	NA
MW-102	Sulfate	5	NA	ND	No	NA	NA
MW-103	Sulfate	5	NA	39	Yes	36	Yes
MW-104	Sulfate	5	NA	500	Yes	400	Yes
MW-105	Sulfate	5	NA	7.7	Yes	51	Yes
MW-106	Sulfate	5	NA	ND	No	NA	NA
MW-109	Sulfate	5	NA	9.8	Yes	8.4	Yes
MW-110	Sulfate	5	NA	140	Yes	280	Yes
MW-102	TDS	44	NA	22	No	NA	NA
MW-103	TDS	44	NA	110	Yes	72	Yes
MW-104	TDS	44	NA	980	Yes	900	Yes
MW-105	TDS	44	NA	240	Yes	460	Yes
MW-106	TDS	44	NA	ND	No	NA	NA
MW-109	TDS	44	NA	ND	No	NA	NA
MW-110	TDS	44	NA	360	Yes	840	Yes

Notes:

1. Results for boron, calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS) are in milligrams per liter. Results for pH are in standard units.
2. NA indicates not applicable.
3. ND indicates the parameter was not detected above the laboratory Practical Quantitation Limit (PQL). As stated in Section 4.1 Statistical Method, the reporting limit utilized for non-detects is the PQL as reported by the laboratory.
4. Initial results were collected on October 2 to 6, 2017. Verification sampling, on a subset of wells, was performed December 19 and 20, 2017.

SANITAS EXPORT

INTERWELL PREDICTION LIMITS

Ash Landfill No. 1 - Interwell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/12/2018, 9:56 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-102	0.05	n/a	10/6/2017	0.05ND	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-103	0.05	n/a	10/6/2017	0.37	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-104	0.05	n/a	10/5/2017	12	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-105	0.05	n/a	10/5/2017	0.32	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-106	0.05	n/a	10/5/2017	0.05ND	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-109	0.05	n/a	10/5/2017	0.047	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-110	0.05	n/a	10/6/2017	2.3	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-102	1.483	n/a	10/6/2017	0.56	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-103	1.483	n/a	10/6/2017	4.3	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-104	1.483	n/a	10/5/2017	55	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-105	1.483	n/a	10/5/2017	58	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-106	1.483	n/a	10/5/2017	0.39	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-109	1.483	n/a	10/5/2017	3.7	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-110	1.483	n/a	10/6/2017	15	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-102	6.959	n/a	10/6/2017	6	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-103	6.959	n/a	10/6/2017	10	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-104	6.959	n/a	10/5/2017	120	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-105	6.959	n/a	10/5/2017	33	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-106	6.959	n/a	10/5/2017	4.5	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-109	6.959	n/a	10/5/2017	5.8	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-110	6.959	n/a	10/6/2017	62	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Field pH (SU)	MW-102	7.11	4.5	10/6/2017	4.56	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-103	7.11	4.5	10/6/2017	5.07	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-104	7.11	4.5	10/5/2017	3.79	Yes	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-105	7.11	4.5	10/5/2017	6.07	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-106	7.11	4.5	10/5/2017	4.77	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-109	7.11	4.5	10/5/2017	4.52	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-110	7.11	4.5	10/6/2017	5.73	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-102	0.1	n/a	10/6/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-103	0.1	n/a	10/6/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-104	0.1	n/a	10/5/2017	0.22	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-105	0.1	n/a	10/5/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-106	0.1	n/a	10/5/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-109	0.1	n/a	10/5/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-110	0.1	n/a	10/6/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-102	5	n/a	10/6/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-103	5	n/a	10/6/2017	39	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-104	5	n/a	10/5/2017	500	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-105	5	n/a	10/5/2017	7.7	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-106	5	n/a	10/5/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-109	5	n/a	10/5/2017	9.8	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-110	5	n/a	10/6/2017	140	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-102	44	n/a	10/6/2017	22	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-103	44	n/a	10/6/2017	110	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-104	44	n/a	10/5/2017	980	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-105	44	n/a	10/5/2017	240	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-106	44	n/a	10/5/2017	5ND	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-109	44	n/a	10/5/2017	5ND	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-110	44	n/a	10/6/2017	360	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2

Ash Landfill No. 1 - Interwell Prediction Limits - All Results

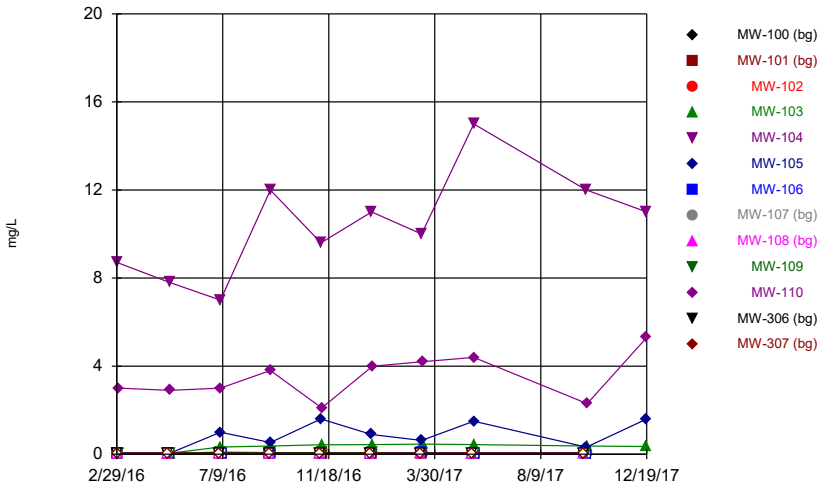
Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/10/2018, 2:42 PM

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-102	0.05	n/a	10/6/2017	0.05ND	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-103	0.05	n/a	12/19/2017	0.35	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-104	0.05	n/a	12/19/2017	11	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-105	0.05	n/a	12/19/2017	1.6	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-106	0.05	n/a	10/5/2017	0.05ND	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-109	0.05	n/a	10/5/2017	0.047	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-110	0.05	n/a	12/19/2017	5.3	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-102	1.483	n/a	10/6/2017	0.56	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-103	1.483	n/a	12/19/2017	3.7	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-104	1.483	n/a	12/19/2017	47	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-105	1.483	n/a	12/19/2017	69	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-106	1.483	n/a	10/5/2017	0.39	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-109	1.483	n/a	12/19/2017	3.1	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-110	1.483	n/a	12/19/2017	41	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-102	6.959	n/a	10/6/2017	6	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-103	6.959	n/a	12/19/2017	9.3	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-104	6.959	n/a	12/19/2017	84	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-105	6.959	n/a	12/19/2017	120	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-106	6.959	n/a	10/5/2017	4.5	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-109	6.959	n/a	10/5/2017	5.8	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-110	6.959	n/a	12/19/2017	180	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Field pH (SU)	MW-102	7.11	4.5	10/6/2017	4.56	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-103	7.11	4.5	12/19/2017	5.1	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-104	7.11	4.5	12/19/2017	4.1	Yes	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-105	7.11	4.5	12/19/2017	6.11	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-106	7.11	4.5	10/5/2017	4.77	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-109	7.11	4.5	12/19/2017	4.76	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Field pH (SU)	MW-110	7.11	4.5	12/19/2017	4.84	No	54	n/a	n/a	0	n/a	n/a	0.001301	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-102	0.1	n/a	10/6/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-103	0.1	n/a	10/6/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-104	0.1	n/a	12/19/2017	0.26	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-105	0.1	n/a	10/5/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-106	0.1	n/a	10/5/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-109	0.1	n/a	10/5/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-110	0.1	n/a	10/6/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-102	5	n/a	10/6/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-103	5	n/a	12/19/2017	36	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-104	5	n/a	12/19/2017	400	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-105	5	n/a	12/19/2017	51	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-106	5	n/a	10/5/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-109	5	n/a	12/19/2017	8.4	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-110	5	n/a	12/19/2017	280	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-102	44	n/a	10/6/2017	22	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-103	44	n/a	12/19/2017	72	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-104	44	n/a	12/19/2017	900	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-105	44	n/a	12/19/2017	460	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-106	44	n/a	10/5/2017	5ND	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-109	44	n/a	10/5/2017	5ND	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-110	44	n/a	12/19/2017	840	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2

TIME SERIES

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

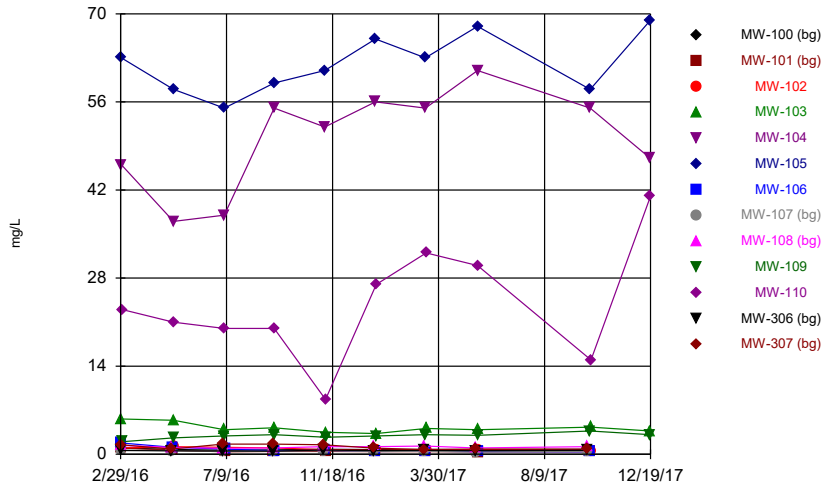
Time Series



Constituent: Boron Analysis Run 1/11/2018 8:57 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

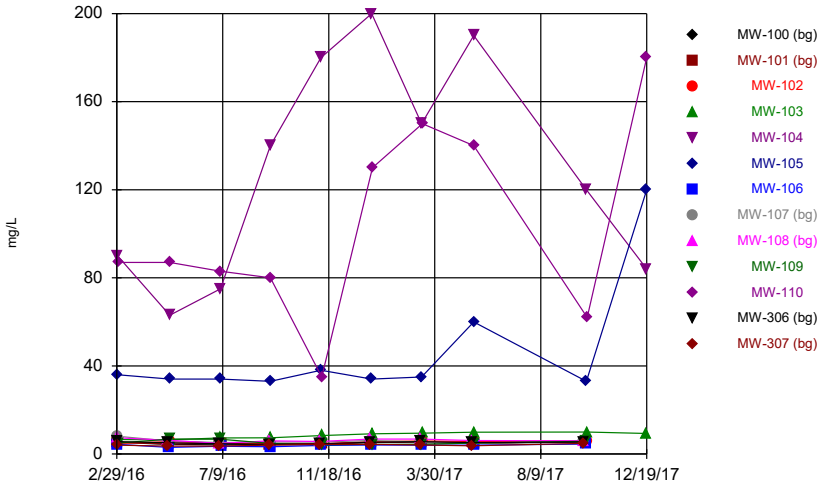
Time Series



Constituent: Calcium Analysis Run 1/11/2018 8:57 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

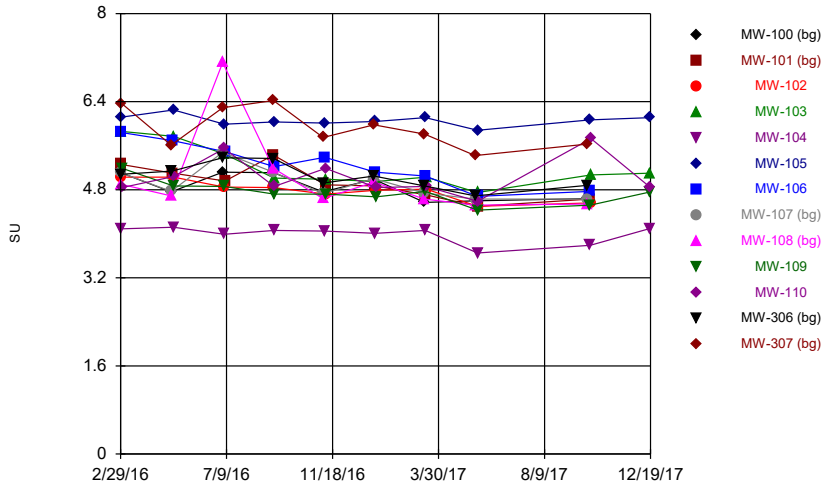
Time Series



Constituent: Chloride Analysis Run 1/11/2018 8:58 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

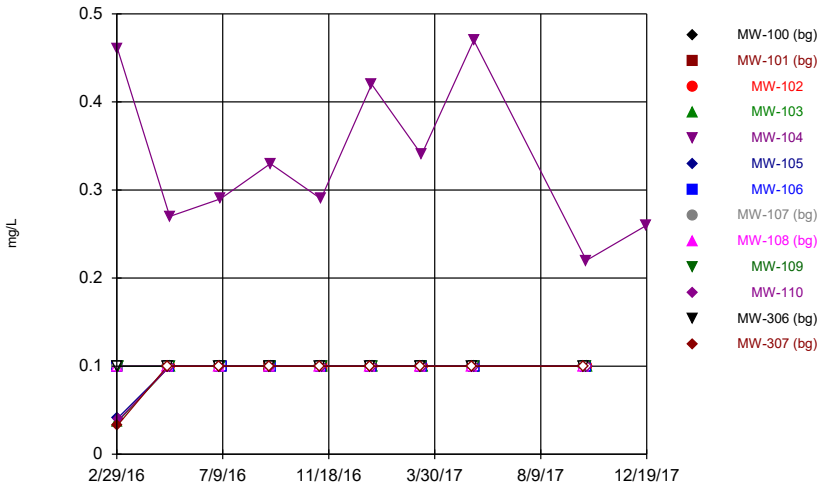
Time Series



Constituent: Field pH Analysis Run 1/11/2018 8:58 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

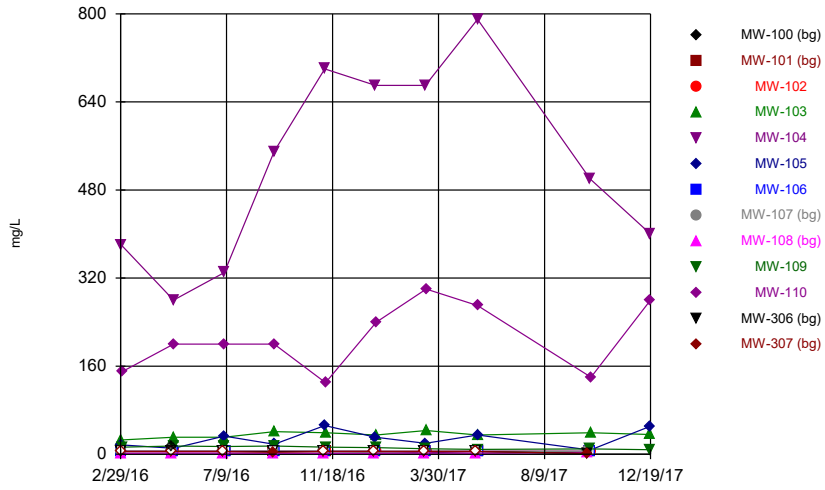
Time Series



Constituent: Fluoride Analysis Run 1/11/2018 8:58 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

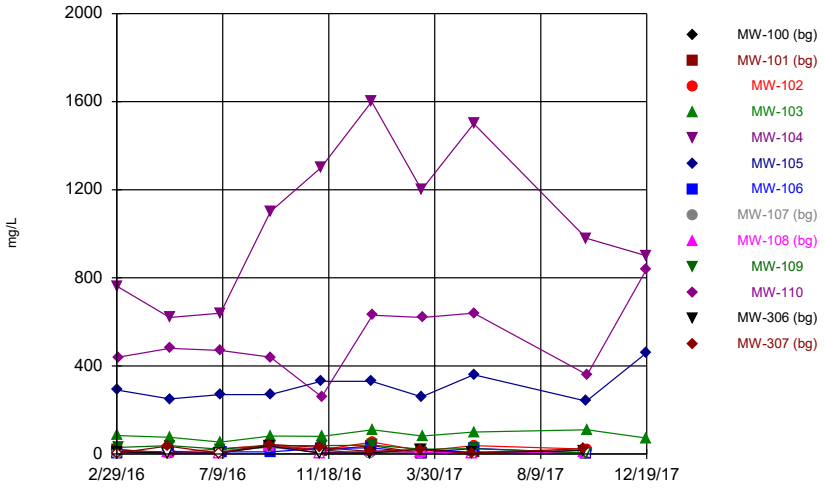
Time Series



Constituent: Sulfate Analysis Run 1/11/2018 9:01 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/11/2018 9:01 AM
Plant Crist Client: Southern Company Data: Plant Crist CCR

TREND TESTS

Ash Landfill No. 1 Trend Test Summary Table - Significant Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/11/2018, 9:51 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	**MW-103**	**2.409**	**37**	**30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (SU)	**MW-101 (bg)**	**-0.4915**	**-28**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-109**	**-3.862**	**-33**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Ash Landfill No. 1 Trend Test Summary Table - All Results

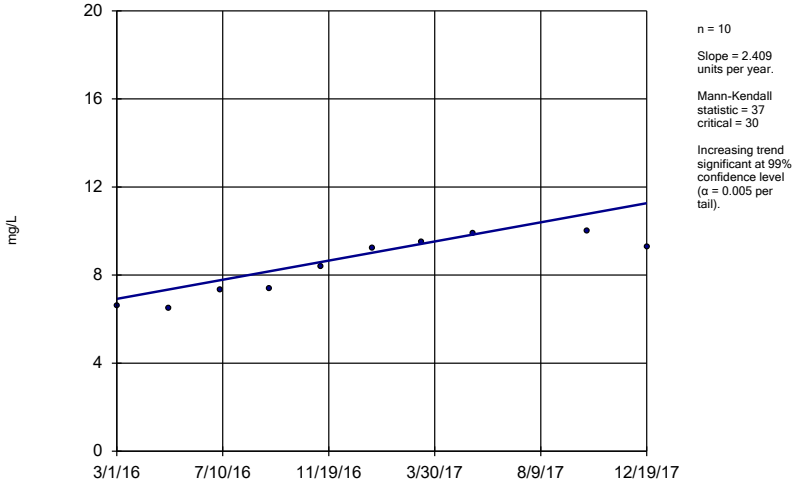
Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/11/2018, 9:51 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-100 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-103	0.08555	20	30	No	10	20	n/a	n/a	0.01	NP
Boron (mg/L)	MW-104	2.565	21	30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-105	0.4132	15	30	No	10	20	n/a	n/a	0.01	NP
Boron (mg/L)	MW-107 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-108 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Boron (mg/L)	MW-109	-0.02366	-18	-25	No	9	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	MW-110	1.159	20	30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-306 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-307 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-100 (bg)	0	-1	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-101 (bg)	-0.1154	-25	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-103	-0.8125	-16	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-104	8.656	18	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-105	5.824	19	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-107 (bg)	-0.1358	-18	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-108 (bg)	0	2	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-109	0.5794	29	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-110	8.69	10	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-306 (bg)	0.03923	9	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-307 (bg)	-0.4952	-15	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-100 (bg)	0.4628	8	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-101 (bg)	0.5222	13	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**MW-103**	**2.409**	**37**	**30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-104	36.1	11	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-105	2.885	9	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-107 (bg)	-0.585	-6	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-108 (bg)	-0.2023	-4	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-109	-0.5801	-6	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-110	49.67	10	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-306 (bg)	0.2784	5	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-307 (bg)	0.4842	15	25	No	9	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-100 (bg)	-0.3021	-18	-25	No	9	0	n/a	n/a	0.01	NP
Field pH (SU)	**MW-101 (bg)**	**-0.4915**	**-28**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (SU)	MW-103	-0.4635	-17	-30	No	10	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-104	-0.06997	-12	-30	No	10	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-105	-0.005547	-2	-30	No	10	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-107 (bg)	-0.3538	-21	-25	No	9	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-108 (bg)	-0.2876	-20	-25	No	9	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-109	-0.2727	-26	-30	No	10	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-110	-0.0156	-5	-30	No	10	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-306 (bg)	-0.2736	-20	-25	No	9	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-307 (bg)	-0.5054	-14	-25	No	9	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-100 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-103	0	8	25	No	9	88.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-104	-0.02066	-4	-30	No	10	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-105	0	8	25	No	9	88.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-107 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-108 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-109	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-110	0	8	25	No	9	88.89	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-306 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-307 (bg)	0	8	25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-100 (bg)	0	-3	-21	No	8	87.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-103	5.468	18	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-104	172.9	14	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-105	11.5	11	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-107 (bg)	0	-2	-25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-108 (bg)	0.2696	8	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-109**	**-3.862**	**-33**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-110	62.39	16	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-306 (bg)	0	-8	-25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-307 (bg)	0	-7	-25	No	9	77.78	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-100 (bg)	-6.965	-13	-25	No	9	33.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-101 (bg)	-1.314	-8	-25	No	9	22.22	n/a	n/a	0.01	NP

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-103



n = 10

Slope = 2.409 units per year.

Mann-Kendall statistic = 37 critical = 30

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

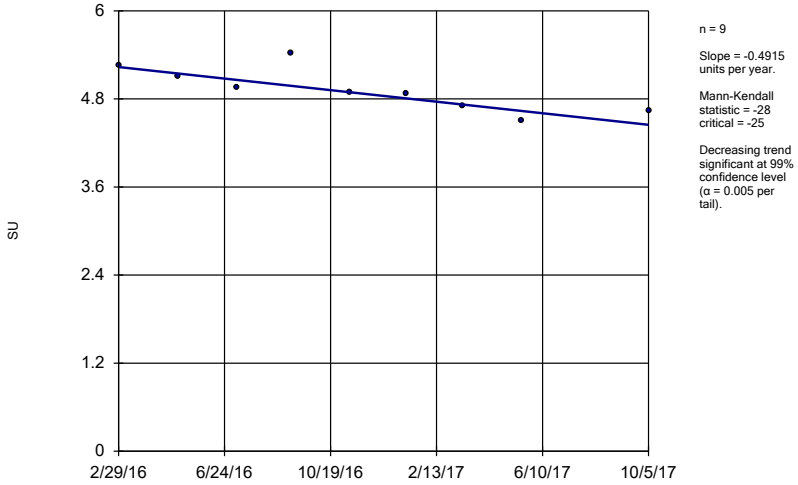
Constituent: Chloride Analysis Run 1/11/2018 9:34 AM View: Trends - 100 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-101 (bg)



n = 9

Slope = -0.4915 units per year.

Mann-Kendall statistic = -28 critical = -25

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

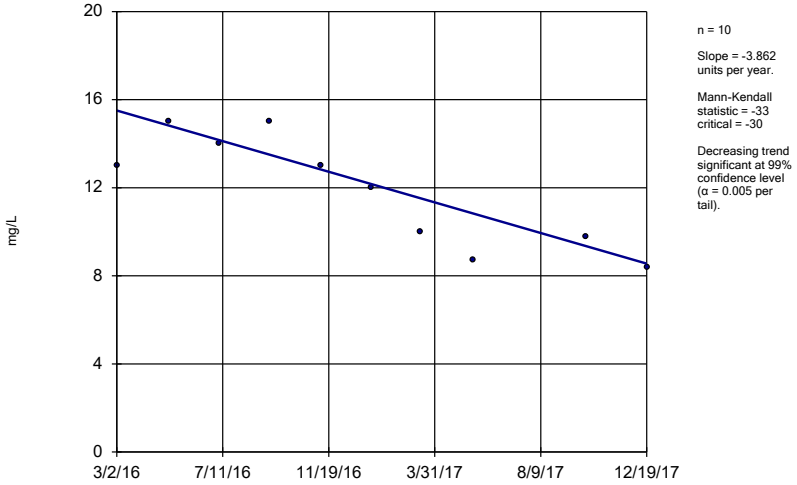
Constituent: Field pH Analysis Run 1/11/2018 9:34 AM View: Trends - 100 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-109



n = 10

Slope = -3.862 units per year.

Mann-Kendall statistic = -33 critical = -30

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 1/11/2018 9:35 AM View: Trends - 100 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

CCR LANDFILL NO. 2

Table B-2
Summary of Statistical Limits and Results
CCR Landfill No. 2

Well	Constituent	Upper Statistical Limit	Lower Statistical Limit	Initial Result	Statistically Significant	Verification Results	Verified Statistically Significant
MW-300	Boron	0.05	NA	0.03	No	NA	NA
MW-303	Boron	0.05	NA	2.9	Yes	2	Yes
MW-304	Boron	0.05	NA	0.67	Yes	3	Yes
MW-305	Boron	0.05	NA	0.026	No	NA	NA
MW-308	Boron	0.05	NA	0.93	Yes	3	Yes
MW-300	Calcium	1.448	NA	0.46	No	NA	NA
MW-303	Calcium	1.448	NA	43	Yes	44	Yes
MW-304	Calcium	1.448	NA	160	Yes	120	Yes
MW-305	Calcium	1.448	NA	0.68	No	NA	NA
MW-308	Calcium	1.448	NA	59	Yes	65	Yes
MW-300	Chloride	6.886	NA	8.9	Yes	8.8	Yes
MW-303	Chloride	6.886	NA	38	Yes	22	Yes
MW-304	Chloride	6.886	NA	21	Yes	79	Yes
MW-305	Chloride	6.886	NA	7.1	Yes	7.6	Yes
MW-308	Chloride	6.886	NA	20	Yes	63	Yes
MW-300	Fluoride	0.1	NA	ND	No	NA	NA
MW-303	Fluoride	0.1	NA	0.25	Yes	0.25	Yes
MW-304	Fluoride	0.1	NA	0.07	No	NA	NA
MW-305	Fluoride	0.1	NA	ND	No	NA	NA
MW-308	Fluoride	0.1	NA	0.13	Yes	0.1	No
MW-300	Field pH	5.47	4.23	4.44	No	NA	NA
MW-303	Field pH	7.387	5.656	6.48	No	NA	NA
MW-304	Field pH	6.105	4.405	6.36	Yes	5.86	No
MW-305	Field pH	5.654	4.273	4.64	No	NA	NA
MW-308	Field pH	6.42	6	5.47	Yes	6.07	No
MW-300	Sulfate	5	NA	ND	No	NA	NA
MW-303	Sulfate	5	NA	130	Yes	85	Yes
MW-304	Sulfate	5	NA	440	Yes	400	Yes
MW-305	Sulfate	5	NA	ND	No	NA	NA

Table B-2
Summary of Statistical Limits and Results
CCR Landfill No. 2

Well	Constituent	Upper Statistical Limit	Lower Statistical Limit	Initial Result	Statistically Significant	Verification Results	Verified Statistically Significant
MW-308	Sulfate	5	NA	180	Yes	170	Yes
MW-300	TDS	44	NA	34	No	NA	NA
MW-303	TDS	44	NA	310	Yes	150	Yes
MW-304	TDS	44	NA	760	Yes	830	Yes
MW-305	TDS	44	NA	36	No	NA	NA
MW-308	TDS	44	NA	320	Yes	410	Yes

Notes:

1. Results for boron, calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS) are in milligrams per liter. Results for pH are in standard units.
2. NA indicates not applicable.
3. ND indicates the parameter was not detected above the laboratory Practical Quantitation Limit (PQL). As stated in Section 4.1 Statistical Method, the reporting limit utilized for non-detects is the PQL as reported by the laboratory.
4. Initial results were collected on October 2 to 6, 2017. Verification sampling, on a subset of wells, was performed December 19 and 20, 2017.

SANITAS EXPORT

INTERWELL PREDICTION LIMITS

Ash Landfill No. 2 - Interwell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 11/8/2017, 1:50 PM

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-300	0.05	n/a	10/3/2017	0.03	No	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-303	0.05	n/a	10/3/2017	2.9	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-304	0.05	n/a	10/3/2017	0.67	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-305	0.05	n/a	10/3/2017	0.026	No	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-308	0.05	n/a	10/3/2017	0.93	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-300	1.448	n/a	10/3/2017	0.46	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-303	1.448	n/a	10/3/2017	43	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-304	1.448	n/a	10/3/2017	160	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-305	1.448	n/a	10/3/2017	0.68	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-308	1.448	n/a	10/3/2017	59	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-300	6.886	n/a	10/3/2017	8.9	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-303	6.886	n/a	10/3/2017	38	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-304	6.886	n/a	10/3/2017	21	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-305	6.886	n/a	10/3/2017	7.1	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-308	6.886	n/a	10/3/2017	20	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	MW-300	0.1	n/a	10/3/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-303	0.1	n/a	10/3/2017	0.25	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-304	0.1	n/a	10/3/2017	0.07	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-305	0.1	n/a	10/3/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-308	0.1	n/a	10/3/2017	0.13	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-300	5	n/a	10/3/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-303	5	n/a	10/3/2017	130	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-304	5	n/a	10/3/2017	440	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-305	5	n/a	10/3/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-308	5	n/a	10/3/2017	180	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-300	44	n/a	10/3/2017	34	No	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-303	44	n/a	10/3/2017	310	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-304	44	n/a	10/3/2017	760	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-305	44	n/a	10/3/2017	36	No	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-308	44	n/a	10/3/2017	320	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2

Ash Landfill No. 2 - Interwell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/10/2018, 2:50 PM

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-300	0.05	n/a	10/3/2017	0.03	No	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-303	0.05	n/a	12/20/2017	2	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-304	0.05	n/a	12/20/2017	3	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-305	0.05	n/a	10/3/2017	0.026	No	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-308	0.05	n/a	12/20/2017	3	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-300	1.448	n/a	10/3/2017	0.46	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-303	1.448	n/a	12/20/2017	44	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-304	1.448	n/a	12/20/2017	120	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-305	1.448	n/a	10/3/2017	0.68	No	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-308	1.448	n/a	12/20/2017	65	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-300	6.886	n/a	12/20/2017	8.8	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-303	6.886	n/a	12/20/2017	22	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-304	6.886	n/a	12/20/2017	79	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-305	6.886	n/a	12/20/2017	7.6	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-308	6.886	n/a	12/20/2017	63	Yes	54	5.172	0.9244	0	None	No	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	MW-300	0.1	n/a	10/3/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-303	0.1	n/a	12/20/2017	0.25	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-304	0.1	n/a	10/3/2017	0.07	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-305	0.1	n/a	10/3/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-308	0.1	n/a	12/20/2017	0.1	No	54	n/a	n/a	98.15	n/a	n/a	0.0006549	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-300	5	n/a	10/3/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-303	5	n/a	12/20/2017	85	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-304	5	n/a	12/20/2017	400	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-305	5	n/a	10/3/2017	5ND	No	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-308	5	n/a	12/20/2017	170	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006768	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-300	44	n/a	10/3/2017	34	No	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-303	44	n/a	12/20/2017	150	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-304	44	n/a	12/20/2017	830	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-305	44	n/a	10/3/2017	36	No	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-308	44	n/a	12/20/2017	410	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006549	NP Inter (normality) 1 of 2

INTRAWELL PREDICTION LIMITS

Ash Landfill No. 2 - Intrawell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 11/8/2017, 1:47 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-100	5.515	4.24	10/2/2017	4.64	No	8	4.878	0.2326	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-101	5.779	4.151	10/5/2017	4.63	No	8	4.965	0.297	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-107	5.726	4.169	10/2/2017	4.63	No	8	4.948	0.2841	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-108	7.11	4.52	10/2/2017	4.54	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) 1 of 2
pH (SU)	MW-300	5.47	4.23	10/3/2017	4.44	No	8	4.85	0.2264	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-303	7.387	5.656	10/3/2017	6.48	No	8	6.521	0.3159	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-304	6.105	4.405	10/3/2017	6.36	Yes	8	5.255	0.3102	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-305	5.654	4.273	10/3/2017	4.64	No	8	4.964	0.252	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-306	5.716	4.409	10/2/2017	4.88	No	8	5.063	0.2384	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-307	6.978	4.932	10/2/2017	5.63	No	8	5.955	0.3735	0	None	No	0.000752	Param Intra 1 of 2
pH (SU)	MW-308	6.42	6	10/3/2017	5.47	Yes	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) 1 of 2

Ash Landfill No. 2 - Intrawell Prediction Limits - All Results

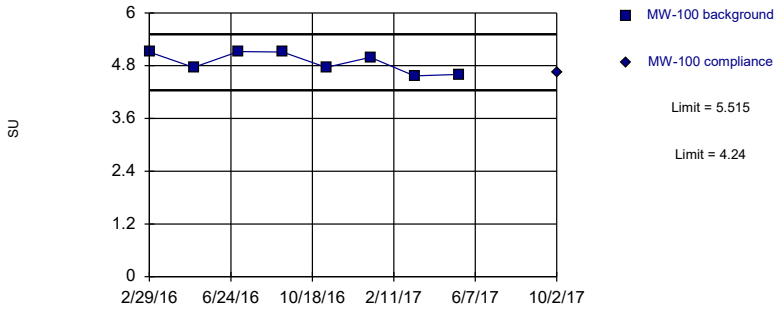
Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/10/2018, 2:52 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	MW-100	5.515	4.24	10/2/2017	4.64	No	8	4.878	0.2326	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-101	5.779	4.151	10/5/2017	4.63	No	8	4.965	0.297	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-107	5.726	4.169	10/2/2017	4.63	No	8	4.948	0.2841	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-108	7.11	4.52	10/2/2017	4.54	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) 1 of 2
Field pH (SU)	MW-300	5.47	4.23	12/20/2017	4.63	No	8	4.85	0.2264	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-303	7.387	5.656	12/20/2017	6.99	No	8	6.521	0.3159	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-304	6.098	4.424	12/20/2017	5.86	No	8	5.261	0.3054	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-305	5.654	4.273	12/20/2017	4.87	No	8	4.964	0.252	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-306	5.716	4.409	10/2/2017	4.88	No	8	5.063	0.2384	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-307	6.976	4.936	10/2/2017	5.63	No	8	5.956	0.3722	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-308	7.01	5.455	12/20/2017	6.07	No	8	6.233	0.2838	0	None	No	0.000752	Param Intra 1 of 2

Within Limits

Prediction Limit

Intrawell Parametric



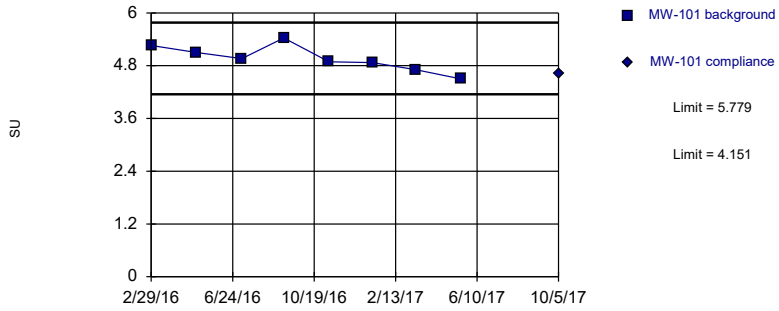
Background Data Summary: Mean=4.878, Std. Dev.=0.2326, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8522, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



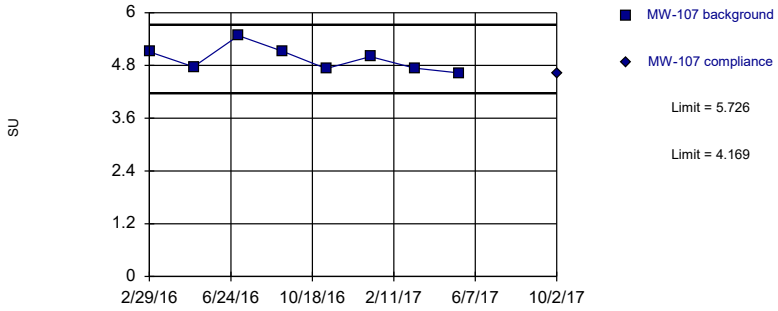
Background Data Summary: Mean=4.965, Std. Dev.=0.297, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9876, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



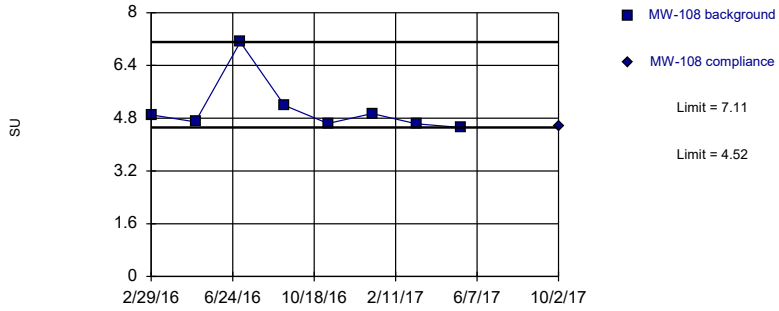
Background Data Summary: Mean=4.948, Std. Dev.=0.2841, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9051, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

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).

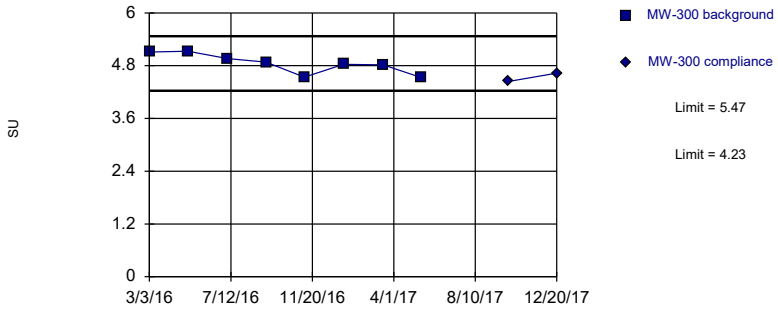
Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.85, Std. Dev.=0.2264, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9077, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

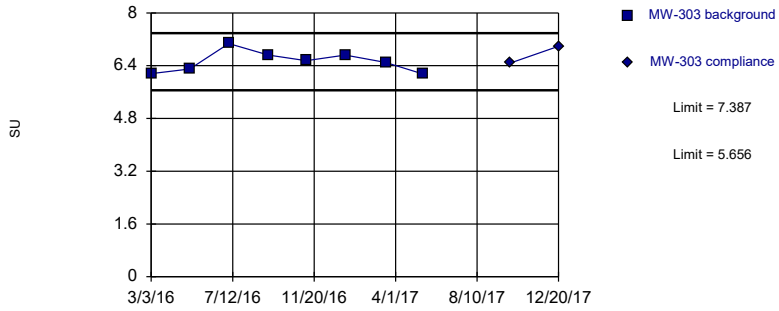
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.521, Std. Dev.=0.3159, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

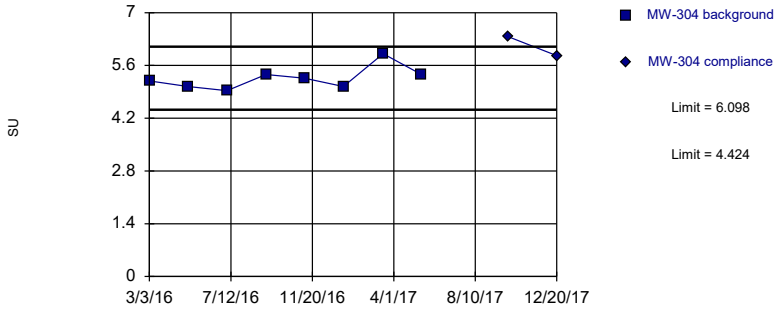
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.261, Std. Dev.=0.3054, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8706, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

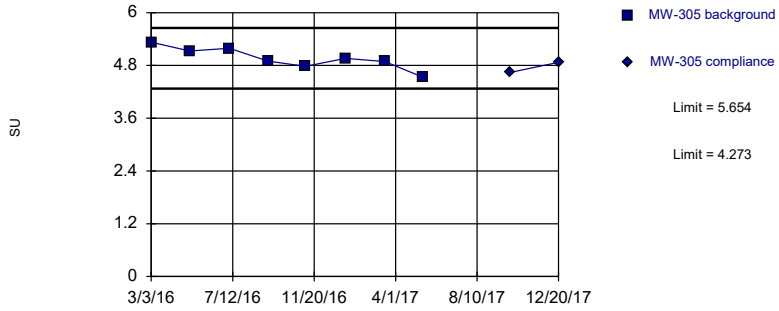
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.964, Std. Dev.=0.252, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9775, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

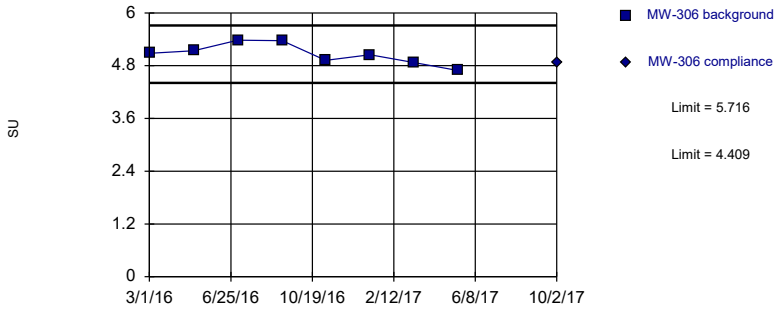
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.063, Std. Dev.=0.2384, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.953, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

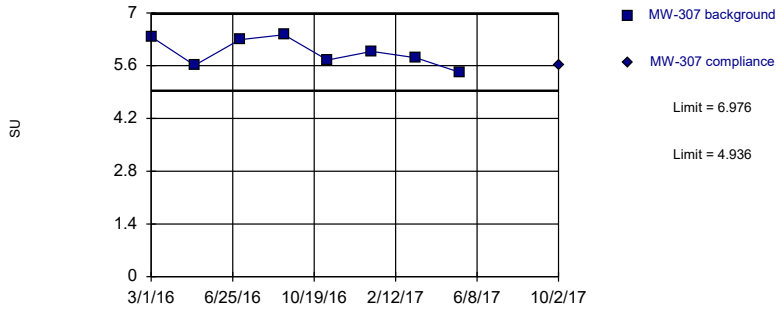
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.956, Std. Dev.=0.3722, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9295, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

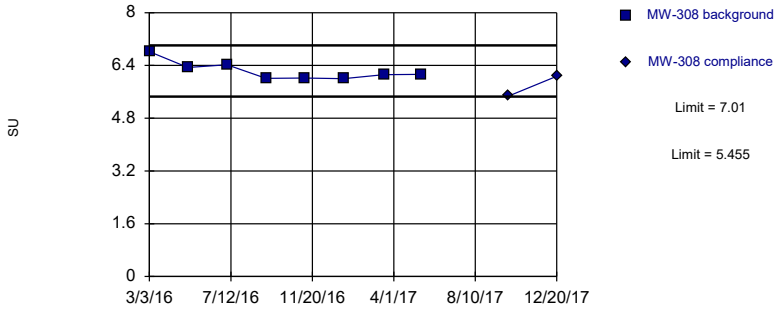
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.233, Std. Dev.=0.2838, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8258, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

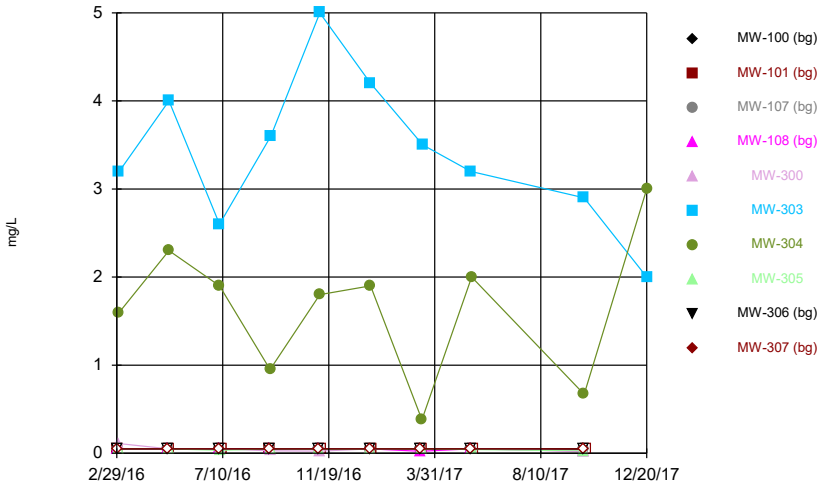
Constituent: Field pH Analysis Run 1/10/2018 2:51 PM View: PLs Intrawell - 300 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

TIME SERIES

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

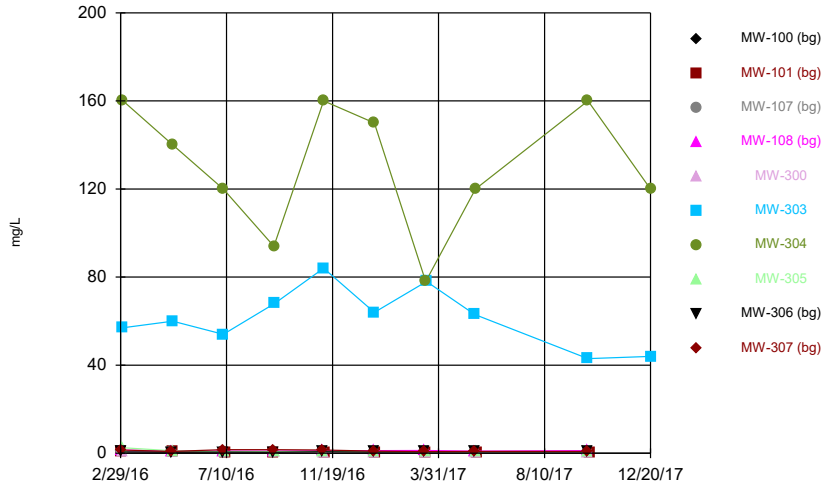
Time Series



Constituent: Boron Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

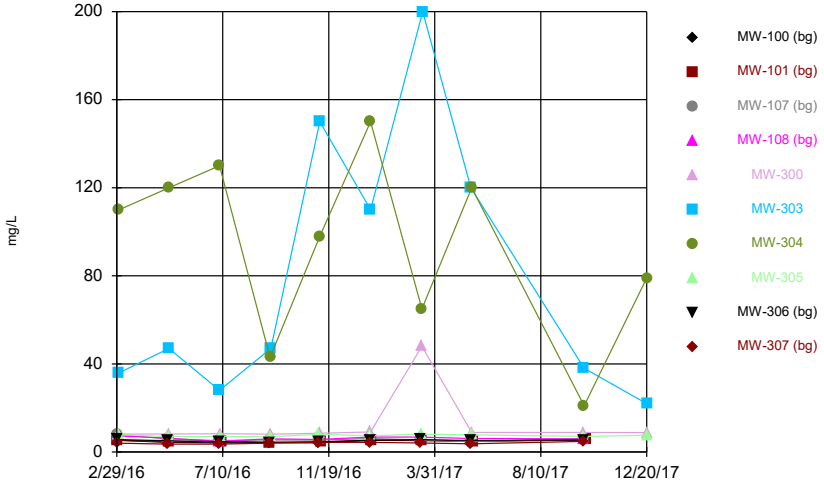
Time Series



Constituent: Calcium Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

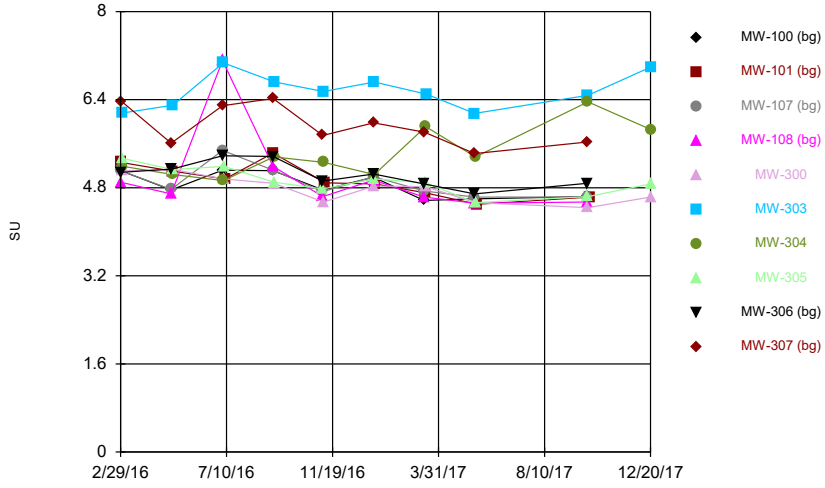
Time Series



Constituent: Chloride Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

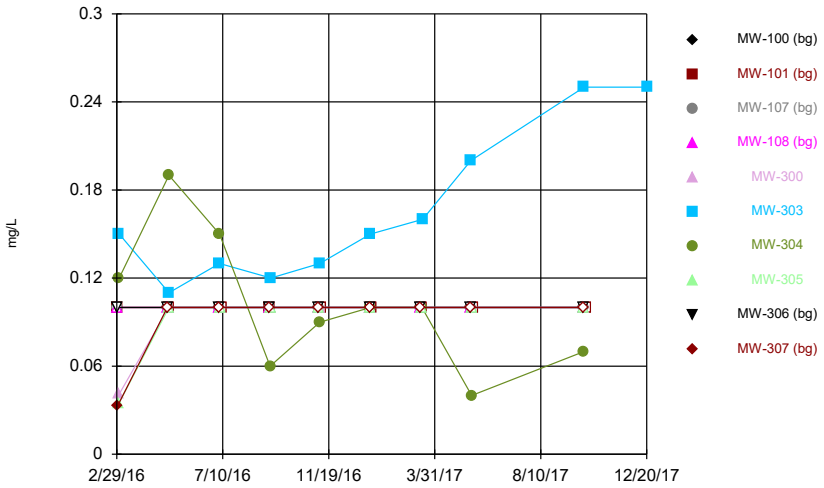
Time Series



Constituent: Field pH Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

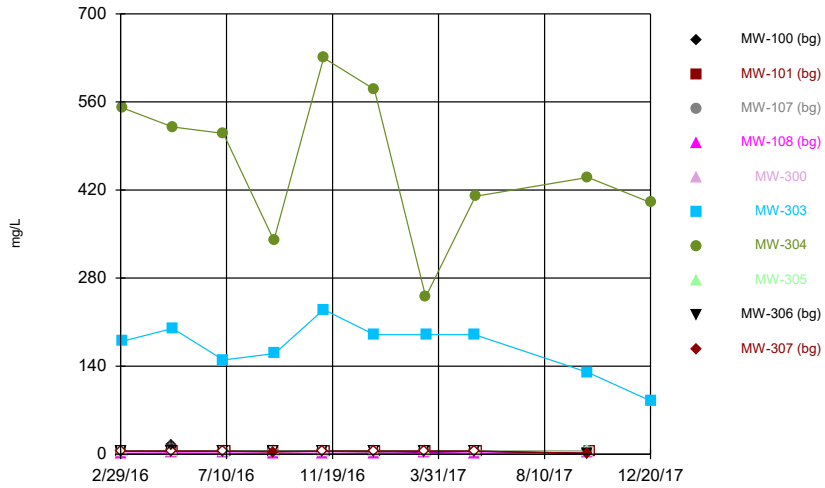
Time Series



Constituent: Fluoride Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

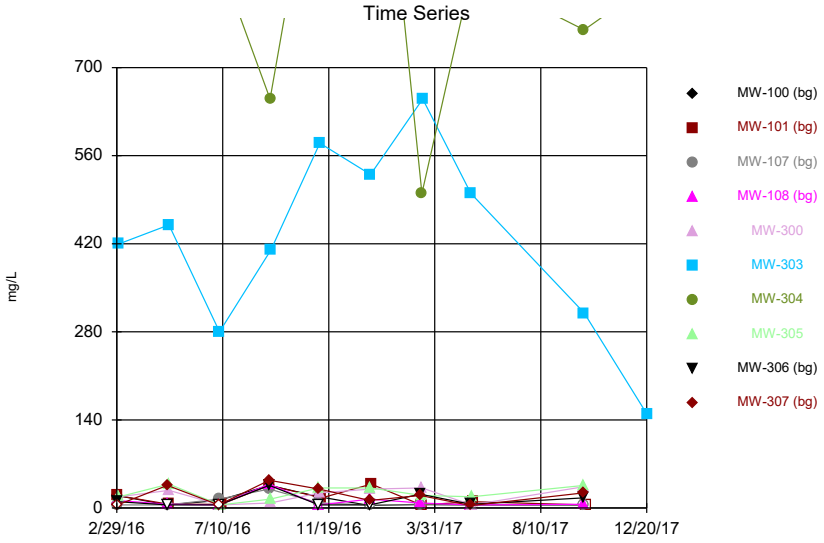
Time Series



Constituent: Sulfate Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/10/2018 2:53 PM View: Time Series - 300 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

TREND TESTS

Ash Landfill No. 2 - Trend Test Summary Table - All Results

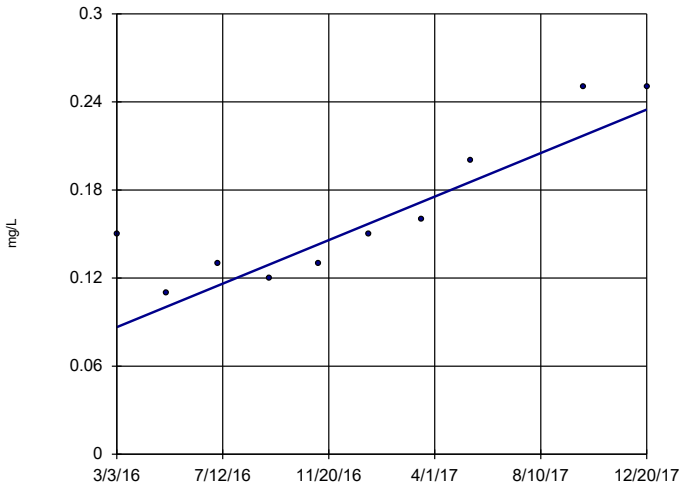
Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/11/2018, 10:42 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-100 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-107 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-108 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Boron (mg/L)	MW-303	-0.6667	-14	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-304	0.1162	2	30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-306 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-307 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-308	-1.936	-17	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-100 (bg)	0	-1	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-101 (bg)	-0.1154	-25	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-107 (bg)	-0.1358	-18	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-108 (bg)	0	2	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-303	-7.222	-5	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-304	-11.66	-7	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-306 (bg)	0.03923	9	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-307 (bg)	-0.4952	-15	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-308	-14.94	-23	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-100 (bg)	0.4628	8	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-101 (bg)	0.5222	13	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-107 (bg)	-0.585	-6	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-108 (bg)	-0.2023	-4	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-300	0.4942	21	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-303	8.04	4	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-304	-20.54	-10	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-305	0.1867	6	30	No	10	10	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-306 (bg)	0.2784	5	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-307 (bg)	0.4842	15	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-308	-14.5	-16	-30	No	10	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-100 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-107 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-108 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	**MW-303**	**0.08233**	**32**	**30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Fluoride (mg/L)	MW-306 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-307 (bg)	0	8	25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-100 (bg)	0	-3	-21	No	8	87.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-107 (bg)	0	-2	-25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-108 (bg)	0.2696	8	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-303	-28.08	-12	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-304	-83.33	-15	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-306 (bg)	0	-8	-25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-307 (bg)	0	-7	-25	No	9	77.78	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-308	-68.61	-28	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-100 (bg)	-6.965	-13	-25	No	9	33.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-101 (bg)	-1.314	-8	-25	No	9	22.22	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-107 (bg)	0	-7	-25	No	9	66.67	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-108 (bg)	-1.448	-6	-25	No	9	33.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-303	-69.34	-3	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-304	-207.9	-14	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-306 (bg)	0.4841	6	25	No	9	44.44	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-307 (bg)	-0.996	-3	-25	No	9	22.22	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-308	-140.1	-25	-30	No	10	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-303



n = 10

Slope = 0.08233 units per year.

Mann-Kendall statistic = 32
critical = 30

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Fluoride Analysis Run 1/11/2018 10:40 AM View: Trends - 300 Wells

Plant Crist Client: Southern Company Data: Plant Crist CCR

GYPSUM STORAGE AREA

Table B-3
Summary of Statistical Limits and Results
Gypsum Storage Area

Well	Constituent	Upper Statistical Limit	Lower Statistical Limit	Initial Result	Statistically Significant	Verification Results	Verified Statistically Significant
MW-200	Boron	0.05	NA	18	Yes	16	Yes
MW-201	Boron	0.05	NA	6	Yes	4.9	Yes
MW-202	Boron	0.05	NA	0.087	Yes	0.048	No
MW-203	Boron	0.05	NA	0.97	Yes	0.87	Yes
MW-204	Boron	0.05	NA	5.9	Yes	5.9	Yes
MW-205	Boron	0.05	NA	0.039	No	NA	NA
MW-206	Boron	0.05	NA	52	Yes	51	Yes
MW-200	Calcium	1.483	NA	490	Yes	420	Yes
MW-201	Calcium	1.483	NA	100	Yes	82	Yes
MW-202	Calcium	1.483	NA	4.9	Yes	4.8	Yes
MW-203	Calcium	1.483	NA	24	Yes	28	Yes
MW-204	Calcium	1.483	NA	74	Yes	76	Yes
MW-205	Calcium	1.483	NA	26	Yes	21	Yes
MW-206	Calcium	1.483	NA	1,300	Yes	1,200	Yes
MW-200	Chloride	6.959	NA	910	Yes	810	Yes
MW-201	Chloride	6.959	NA	160	Yes	110	Yes
MW-202	Chloride	6.959	NA	17	Yes	20	Yes
MW-203	Chloride	6.959	NA	17	Yes	15	Yes
MW-204	Chloride	6.959	NA	70	Yes	72	Yes
MW-205	Chloride	6.959	NA	2.7	No	NA	NA
MW-206	Chloride	6.959	NA	2,300	Yes	2,400	Yes
MW-200	Fluoride	0.1	NA	0.08	No	NA	NA
MW-201	Fluoride	0.1	NA	0.96	Yes	0.88	Yes
MW-202	Fluoride	0.1	NA	0.04	No	NA	NA
MW-203	Fluoride	0.1	NA	0.06	No	NA	NA
MW-204	Fluoride	0.1	NA	0.31	Yes	0.31	Yes
MW-205	Fluoride	0.1	NA	ND	No	NA	NA
MW-206	Fluoride	0.1	NA	0.11	Yes	0.08	No
MW-200	Field pH	5.386	4.534	4.89	No	NA	NA

Table B-3
Summary of Statistical Limits and Results
Gypsum Storage Area

Well	Constituent	Upper Statistical Limit	Lower Statistical Limit	Initial Result	Statistically Significant	Verification Results	Verified Statistically Significant
MW-201	Field pH	6.048	4.502	4.84	No	NA	NA
MW-202	Field pH	5.435	4.005	4.47	No	NA	NA
MW-203	Field pH	5.13	4.227	4.46	No	NA	NA
MW-204	Field pH	5.369	3.671	4.14	No	NA	NA
MW-205	Field pH	6.24	4.898	5.66	No	NA	NA
MW-206	Field pH	4.881	3.759	4.11	No	NA	NA
MW-200	Sulfate	5	NA	250	Yes	230	Yes
MW-201	Sulfate	5	NA	240	Yes	210	Yes
MW-202	Sulfate	5	NA	8.5	Yes	8	Yes
MW-203	Sulfate	5	NA	82	Yes	88	Yes
MW-204	Sulfate	5	NA	350	Yes	350	Yes
MW-205	Sulfate	5	NA	15	Yes	16	Yes
MW-206	Sulfate	5	NA	480	Yes	470	Yes
MW-200	TDS	44	NA	3,400	Yes	1,900	Yes
MW-201	TDS	44	NA	700	Yes	590	Yes
MW-202	TDS	44	NA	48	Yes	54	Yes
MW-203	TDS	44	NA	150	Yes	150	Yes
MW-204	TDS	44	NA	710	Yes	640	Yes
MW-205	TDS	44	NA	50	Yes	ND	No
MW-206	TDS	44	NA	7,100	Yes	7,000	Yes

Notes:

1. Results for boron, calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS) are in milligrams per liter. Results for pH are in standard units.
2. NA indicates not applicable.
3. ND indicates the parameter was not detected above the laboratory Practical Quantitation Limit (PQL). As stated in Section 4.1 Statistical Method, the reporting limit utilized for non-detects is the PQL as reported by the laboratory.
4. Initial results were collected on October 2 to 6, 2017. Verification sampling, on a subset of wells, was performed December 19 and 20, 2017.

SANITAS EXPORT

INTERWELL PREDICTION LIMITS

Gypsum Storage Area - Interwell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 11/8/2017, 1:52 PM

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-200	0.05	n/a	10/4/2017	18	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.05	n/a	10/4/2017	6	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-202	0.05	n/a	10/4/2017	0.087	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-203	0.05	n/a	10/4/2017	0.97	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-204	0.05	n/a	10/4/2017	5.9	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-205	0.05	n/a	10/4/2017	0.039	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.05	n/a	10/3/2017	52	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.483	n/a	10/4/2017	490	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.483	n/a	10/4/2017	100	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-202	1.483	n/a	10/4/2017	4.9	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-203	1.483	n/a	10/4/2017	24	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-204	1.483	n/a	10/4/2017	74	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-205	1.483	n/a	10/4/2017	26	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.483	n/a	10/3/2017	1300	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.959	n/a	10/4/2017	910	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.959	n/a	10/4/2017	160	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-202	6.959	n/a	10/4/2017	17	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-203	6.959	n/a	10/4/2017	17	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-204	6.959	n/a	10/4/2017	70	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-205	6.959	n/a	10/4/2017	2.7	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.959	n/a	10/3/2017	2300	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	MW-200	0.1	n/a	10/4/2017	0.08	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-201	0.1	n/a	10/4/2017	0.96	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-202	0.1	n/a	10/4/2017	0.04	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-203	0.1	n/a	10/4/2017	0.06	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-204	0.1	n/a	10/4/2017	0.31	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-205	0.1	n/a	10/4/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-206	0.1	n/a	10/3/2017	0.11	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	10/4/2017	250	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	10/4/2017	240	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-202	5	n/a	10/4/2017	8.5	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-203	5	n/a	10/4/2017	82	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-204	5	n/a	10/4/2017	350	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-205	5	n/a	10/4/2017	15	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	10/3/2017	480	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	44	n/a	10/4/2017	3400	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-201	44	n/a	10/4/2017	700	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-202	44	n/a	10/4/2017	48	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-203	44	n/a	10/4/2017	150	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-204	44	n/a	10/4/2017	710	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-205	44	n/a	10/4/2017	50	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-206	44	n/a	10/3/2017	7100	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2

Gypsum Storage Area - Interwell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/10/2018, 2:58 PM

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-200	0.05	n/a	12/20/2017	16	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.05	n/a	12/20/2017	4.9	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-202	0.05	n/a	12/20/2017	0.048	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-203	0.05	n/a	12/20/2017	0.87	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-204	0.05	n/a	12/20/2017	5.9	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-205	0.05	n/a	10/4/2017	0.039	No	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.05	n/a	12/20/2017	51	Yes	54	n/a	n/a	96.3	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.483	n/a	12/20/2017	420	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.483	n/a	12/20/2017	82	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-202	1.483	n/a	12/20/2017	4.8	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-203	1.483	n/a	12/20/2017	28	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-204	1.483	n/a	12/20/2017	76	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-205	1.483	n/a	12/20/2017	21	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.483	n/a	12/20/2017	1200	Yes	54	0.8627	0.1837	0	None	sqrt(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.959	n/a	12/20/2017	810	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.959	n/a	12/20/2017	110	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-202	6.959	n/a	12/20/2017	20	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-203	6.959	n/a	12/20/2017	15	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-204	6.959	n/a	12/20/2017	72	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-205	6.959	n/a	10/4/2017	2.7ND	No	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.959	n/a	12/20/2017	2400	Yes	54	5.172	0.9244	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	MW-200	0.1	n/a	10/4/2017	0.08	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-201	0.1	n/a	12/20/2017	0.88	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-202	0.1	n/a	10/4/2017	0.04	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-203	0.1	n/a	10/4/2017	0.06	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-204	0.1	n/a	12/20/2017	0.31	Yes	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-205	0.1	n/a	10/4/2017	0.1ND	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-206	0.1	n/a	12/20/2017	0.08	No	54	n/a	n/a	98.15	n/a	n/a	0.0006506	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	12/20/2017	230	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	12/20/2017	210	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-202	5	n/a	12/20/2017	8	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-203	5	n/a	12/20/2017	88	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-204	5	n/a	12/20/2017	350	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-205	5	n/a	12/20/2017	16	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	12/20/2017	470	Yes	53	n/a	n/a	73.58	n/a	n/a	0.0006724	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	44	n/a	12/20/2017	1900	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-201	44	n/a	12/20/2017	590	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-202	44	n/a	12/20/2017	54	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-203	44	n/a	12/20/2017	150	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-204	44	n/a	12/20/2017	640	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-205	44	n/a	12/20/2017	5ND	No	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-206	44	n/a	12/20/2017	7000	Yes	54	n/a	n/a	37.04	n/a	n/a	0.0006506	NP Inter (normality) 1 of 2

INTRAWELL PREDICTION LIMITS

Gypsum Storage Area - Intrawell Prediction Limits - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 11/8/2017, 1:54 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-100	5.557	4.198	10/2/2017	4.64	No	8	4.878	0.2326	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-101	5.833	4.097	10/5/2017	4.63	No	8	4.965	0.297	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-107	5.778	4.117	10/2/2017	4.63	No	8	4.948	0.2841	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-108	7.11	4.52	10/2/2017	4.54	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) 1 of 2
pH (SU)	MW-200	5.386	4.534	10/4/2017	4.89	No	8	4.96	0.1459	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-201	6.048	4.502	10/4/2017	4.84	No	8	5.275	0.2646	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-202	5.435	4.005	10/4/2017	4.47	No	8	4.72	0.2445	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-203	5.13	4.227	10/4/2017	4.46	No	8	4.679	0.1545	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-204	5.369	3.671	10/4/2017	4.14	No	8	4.52	0.2906	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-205	6.24	4.898	10/4/2017	5.66	No	8	5.569	0.2296	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-206	4.881	3.759	10/3/2017	4.11	No	8	4.32	0.1921	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-306	5.759	4.366	10/2/2017	4.88	No	8	5.063	0.2384	0	None	No	0.0005373	Param Intra 1 of 2
pH (SU)	MW-307	7.047	4.863	10/2/2017	5.63	No	8	5.955	0.3735	0	None	No	0.0005373	Param Intra 1 of 2

Gypsum Storage Area - Intrawell Prediction Limits - All Results

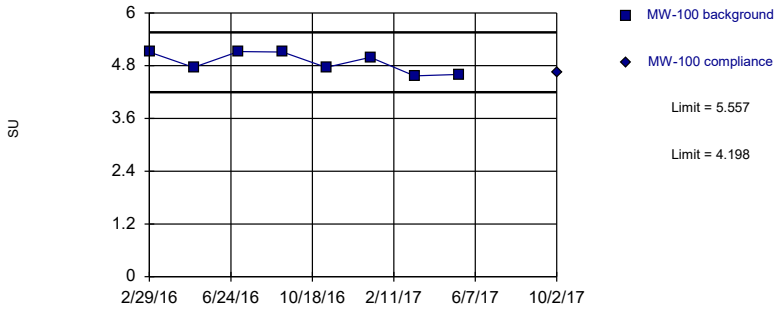
Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/10/2018, 3:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	MW-100	5.557	4.198	10/2/2017	4.64	No	8	4.878	0.2326	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-101	5.833	4.097	10/5/2017	4.63	No	8	4.965	0.297	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-107	5.778	4.117	10/2/2017	4.63	No	8	4.948	0.2841	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-108	7.11	4.52	10/2/2017	4.54	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) 1 of 2
Field pH (SU)	MW-200	5.413	4.517	12/20/2017	4.94	No	8	4.965	0.1534	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-201	6.048	4.502	12/20/2017	4.94	No	8	5.275	0.2646	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-202	5.435	4.005	12/20/2017	4.62	No	8	4.72	0.2445	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-203	5.13	4.227	12/20/2017	4.66	No	8	4.679	0.1545	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-204	5.369	3.671	12/20/2017	4.34	No	8	4.52	0.2906	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-205	6.225	4.913	12/20/2017	5.71	No	8	5.569	0.2245	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-206	4.881	3.759	12/20/2017	4.31	No	8	4.32	0.1921	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-306	5.759	4.366	10/2/2017	4.88	No	8	5.063	0.2384	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-307	7.044	4.869	10/2/2017	5.63	No	8	5.956	0.3722	0	None	No	0.0005373	Param Intra 1 of 2

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.878, Std. Dev.=0.2326, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8522, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

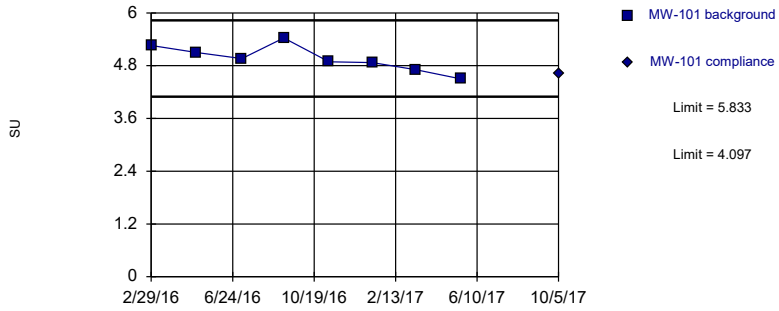
Constituent: Field pH Analysis Run 1/10/2018 2:58 PM View: PLs 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.965, Std. Dev.=0.297, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9876, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

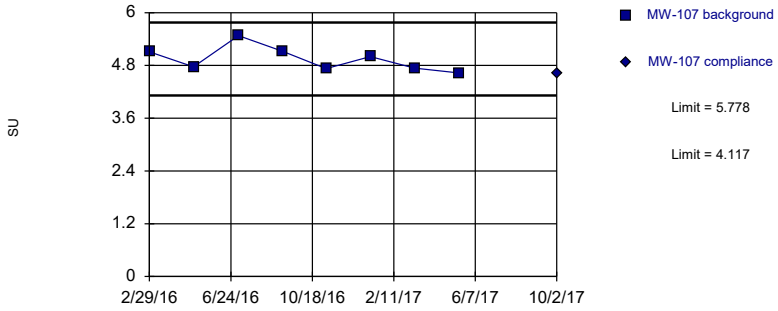
Constituent: Field pH Analysis Run 1/10/2018 2:58 PM View: PLs 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.948, Std. Dev.=0.2841, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9051, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

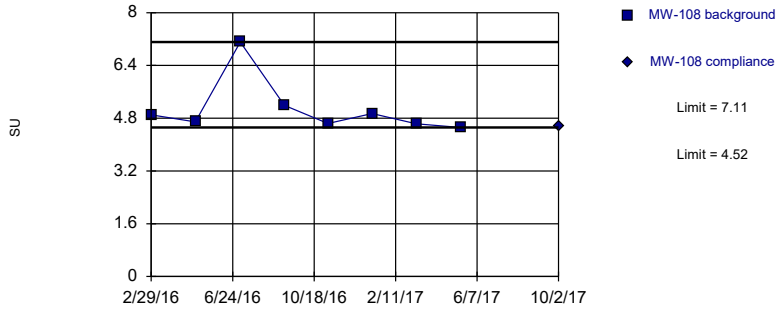
Constituent: Field pH Analysis Run 1/10/2018 2:58 PM View: PLs 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

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: Field pH Analysis Run 1/10/2018 2:58 PM View: PLs 200 Series

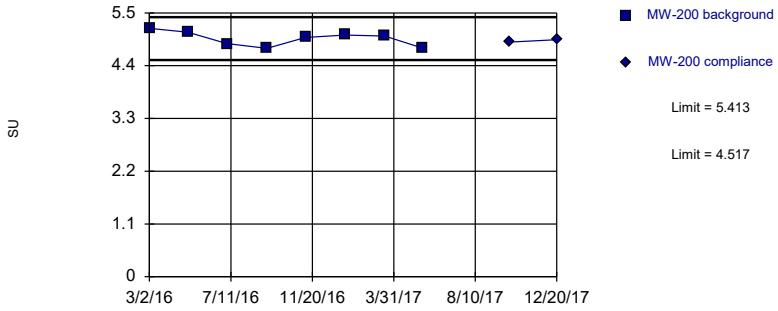
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.965, Std. Dev.=0.1534, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9308, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:58 PM View: PLs 200 Series

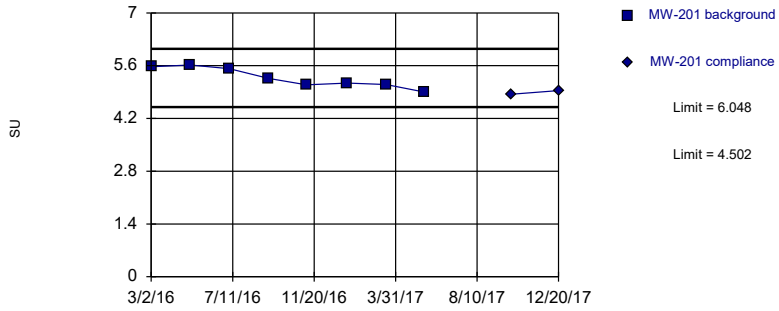
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.275, Std. Dev.=0.2646, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

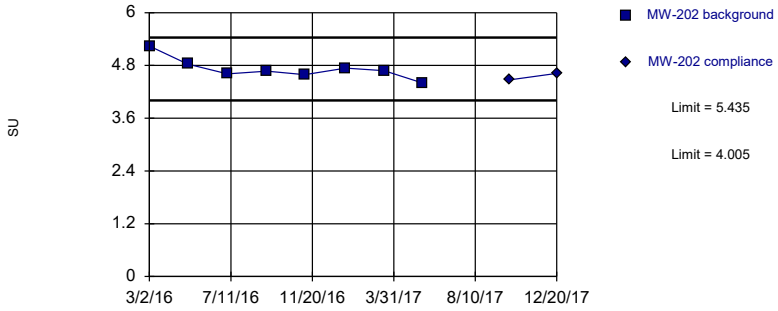
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.72, Std. Dev.=0.2445, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8821, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

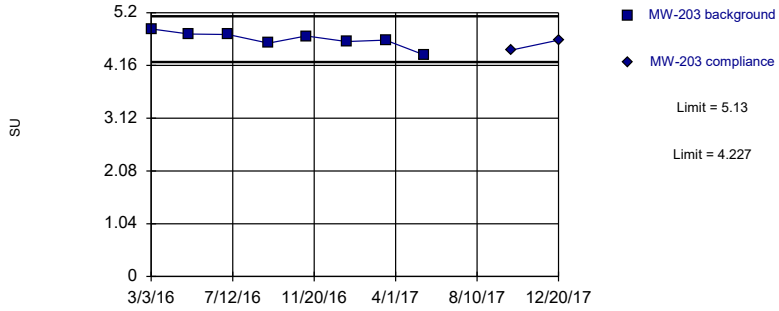
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.679, Std. Dev.=0.1545, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9314, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

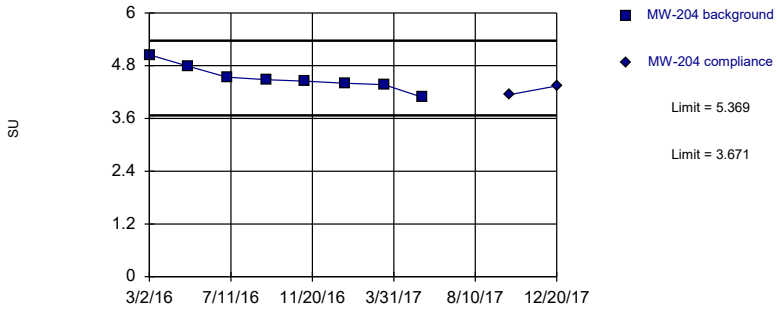
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.52, Std. Dev.=0.2906, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9414, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

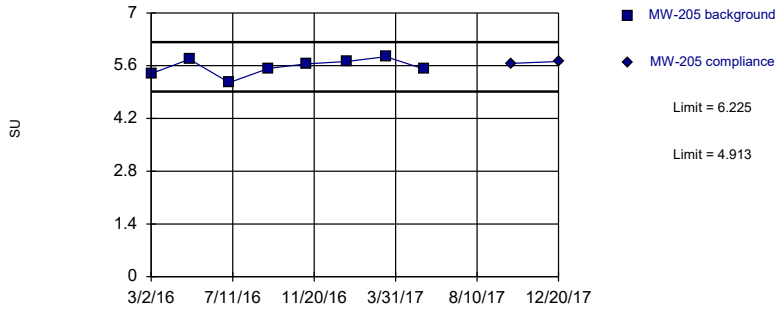
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.569, Std. Dev.=0.2245, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9513, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

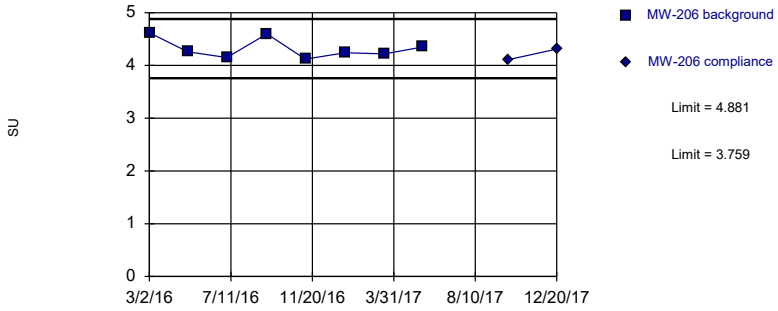
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.32, Std. Dev.=0.1921, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.851, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

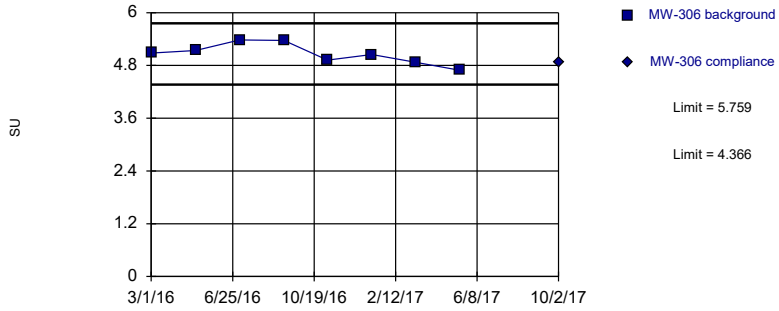
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.063, Std. Dev.=0.2384, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.953, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

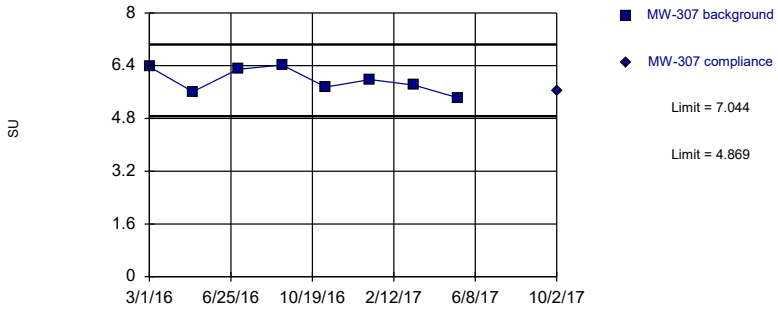
Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.956, Std. Dev.=0.3722, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9295, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

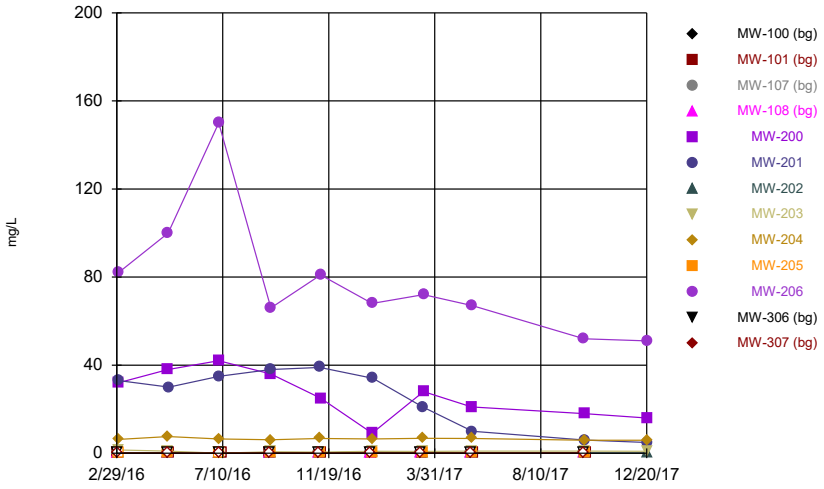
Constituent: Field pH Analysis Run 1/10/2018 2:59 PM View: PLs 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

TIME SERIES

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

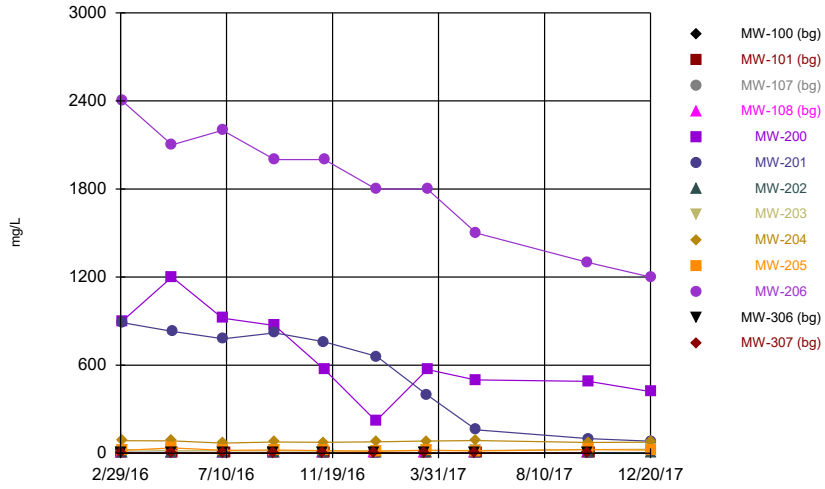
Time Series



Constituent: Boron Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

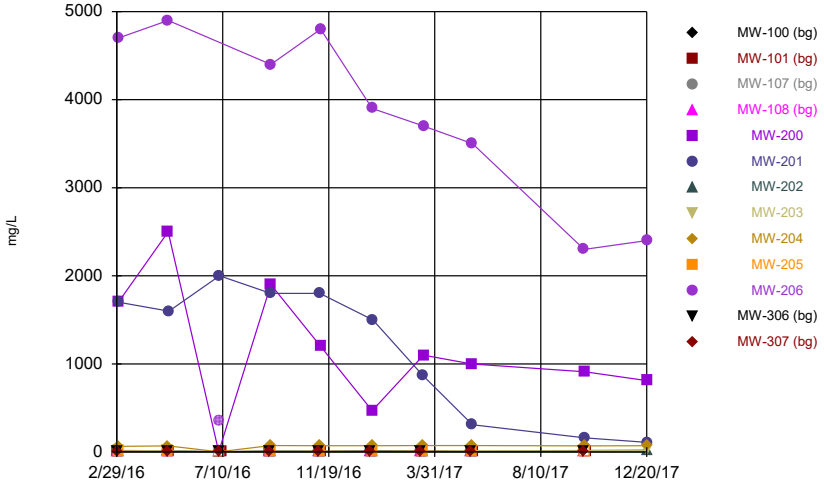
Time Series



Constituent: Calcium Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

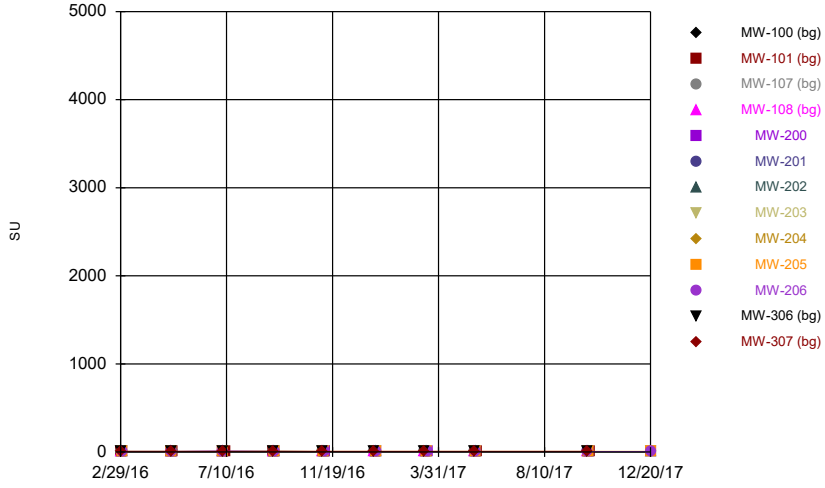
Time Series



Constituent: Chloride Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

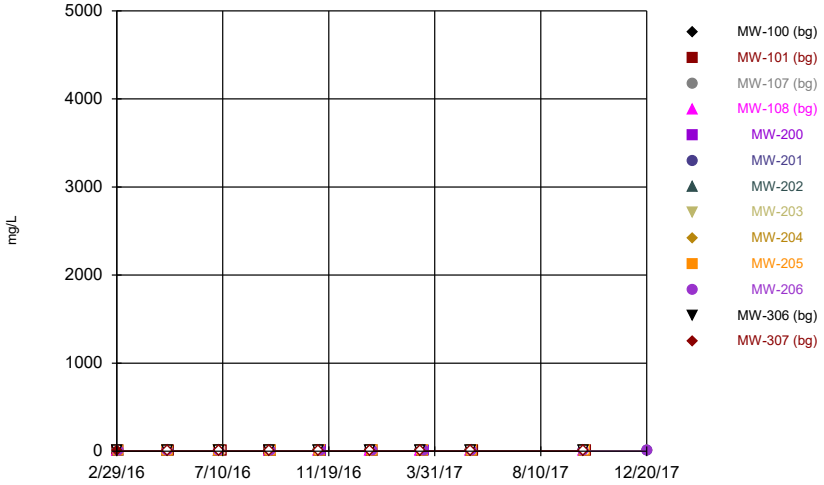
Time Series



Constituent: Field pH Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

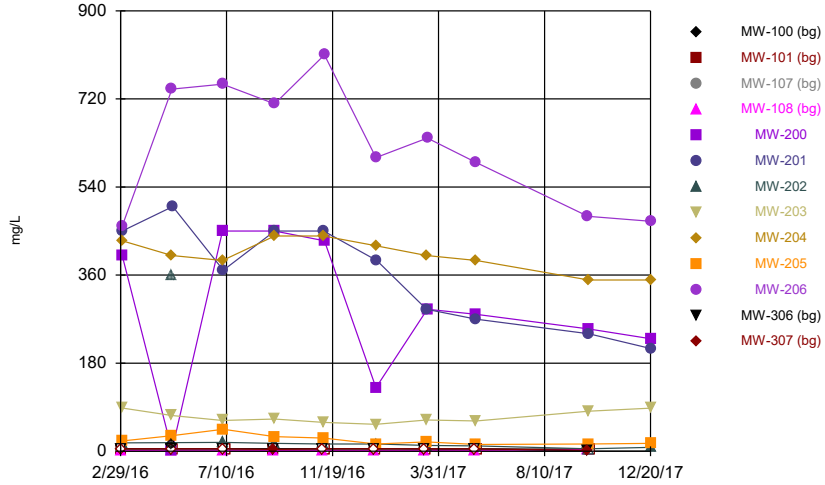
Time Series



Constituent: Fluoride Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

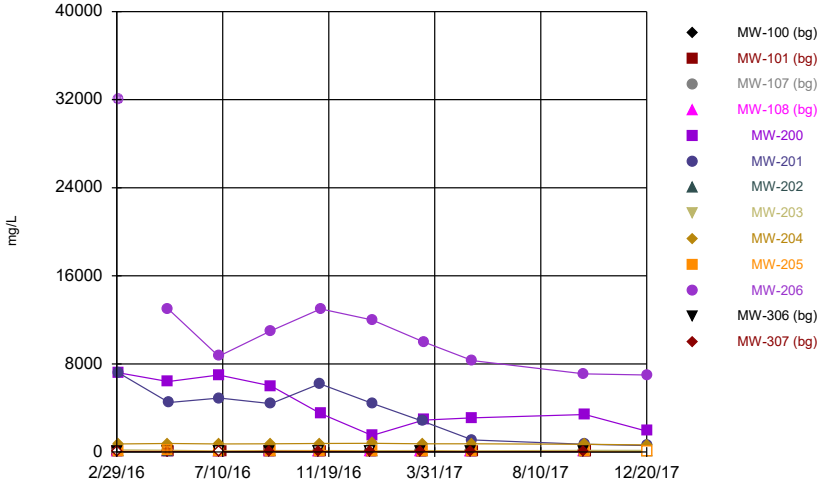
Time Series



Constituent: Sulfate Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/10/2018 3:01 PM View: Time Series - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

TREND TESTS

Gypsum Storage Area - Trend Test Summary Table - All Results

Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/11/2018, 10:36 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-100 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-107 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-108 (bg)	0	-11	-25	No	9	77.78	n/a	n/a	0.01	NP
Boron (mg/L)	MW-200	-13.47	-27	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-201	-17.38	-23	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-203	0	-1	-30	No	10	10	n/a	n/a	0.01	NP
Boron (mg/L)	MW-204	-0.2513	-10	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-206	-26.97	-29	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	MW-306 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-307 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-100 (bg)	0	-1	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-101 (bg)	-0.1154	-25	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-107 (bg)	-0.1358	-18	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-108 (bg)	0	2	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-200**	**-344.2**	**-32**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-201**	**-496.3**	**-43**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-202	-1.154	-22	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-203	1.931	10	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-204	-1.151	-5	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-205	-0.7799	-2	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-206**	**-640.4**	**-41**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-306 (bg)	0.03923	9	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-307 (bg)	-0.4952	-15	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-100 (bg)	0.4628	8	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-101 (bg)	0.5222	13	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-107 (bg)	-0.585	-6	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-108 (bg)	-0.2023	-4	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-200	-493.7	-19	-30	No	10	10	n/a	n/a	0.01	NP
Chloride (mg/L)	**MW-201**	**-1015**	**-32**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-202	1.407	6	30	No	10	10	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-203	0.6124	9	30	No	10	10	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-204	3.769	17	30	No	10	10	n/a	n/a	0.01	NP
Chloride (mg/L)	**MW-206**	**-1431**	**-28**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-306 (bg)	0.2784	5	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-307 (bg)	0.4842	15	25	No	9	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-100 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-107 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-108 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-201	0.318	29	30	No	10	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-204	0.04438	24	30	No	10	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-306 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-307 (bg)	0	8	25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-100 (bg)	0	-3	-21	No	8	87.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-101 (bg)	0	0	25	No	9	100	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-107 (bg)	0	-2	-25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-108 (bg)	0.2696	8	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-200	-94.23	-14	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-201**	**-149**	**-34**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-202**	**-6.301**	**-33**	**-25**	**Yes**	**9**	**11.11**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-203	-1.155	-2	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-204	-50.26	-23	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-205	-9.865	-24	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-206	-165.4	-17	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-306 (bg)	0	-8	-25	No	9	88.89	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-307 (bg)	0	-7	-25	No	9	77.78	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-100 (bg)	-6.965	-13	-25	No	9	33.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-101 (bg)	-1.314	-8	-25	No	9	22.22	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-107 (bg)	0	-7	-25	No	9	66.67	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-108 (bg)	-1.448	-6	-25	No	9	33.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-200	-2940	-29	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**MW-201**	**-3283**	**-36**	**-30**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	MW-202	-6.952	-7	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-203	-19.31	-7	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-204	-19.26	-10	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-206	-3662	-23	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-306 (bg)	0.4841	6	25	No	9	44.44	n/a	n/a	0.01	NP

Gypsum Storage Area - Trend Test Summary Table - All Results

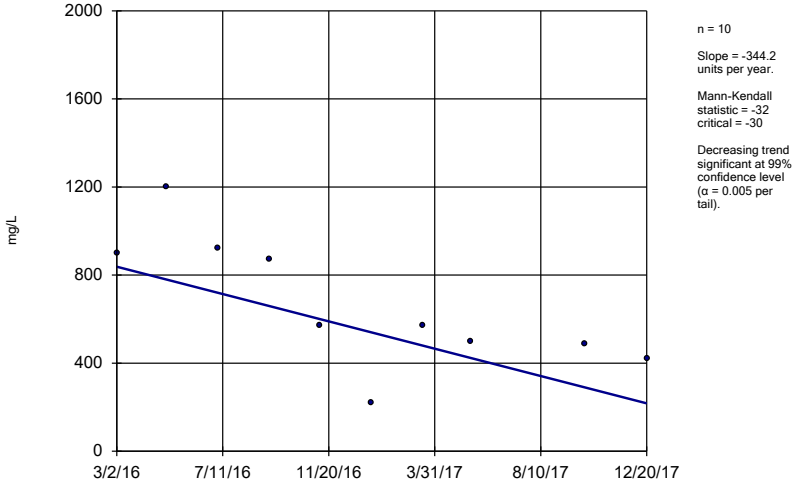
Plant Crist Client: Southern Company Data: Plant Crist CCR Printed 1/11/2018, 10:36 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Total Dissolved Solids (mg/L)	MW-307 (bg)	-0.996	-3	-25	No	9	22.22	n/a	n/a	0.01	NP

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-200



n = 10

Slope = -344.2 units per year.

Mann-Kendall statistic = -32
critical = -30

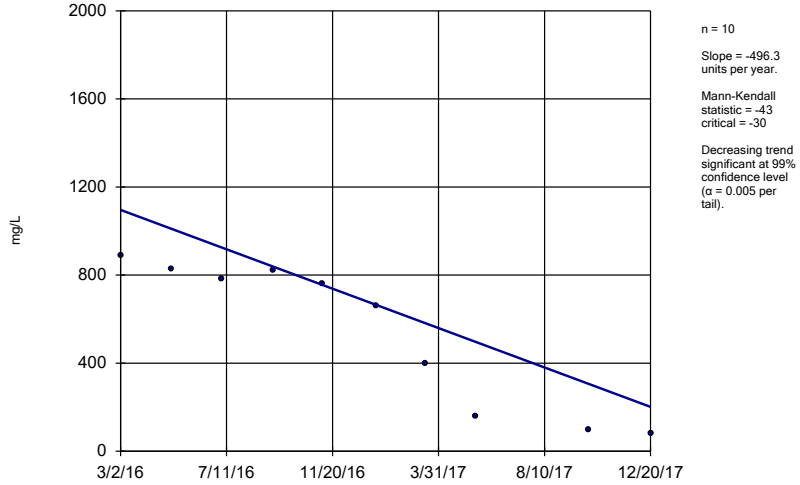
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-201



n = 10

Slope = -496.3 units per year.

Mann-Kendall statistic = -43
critical = -30

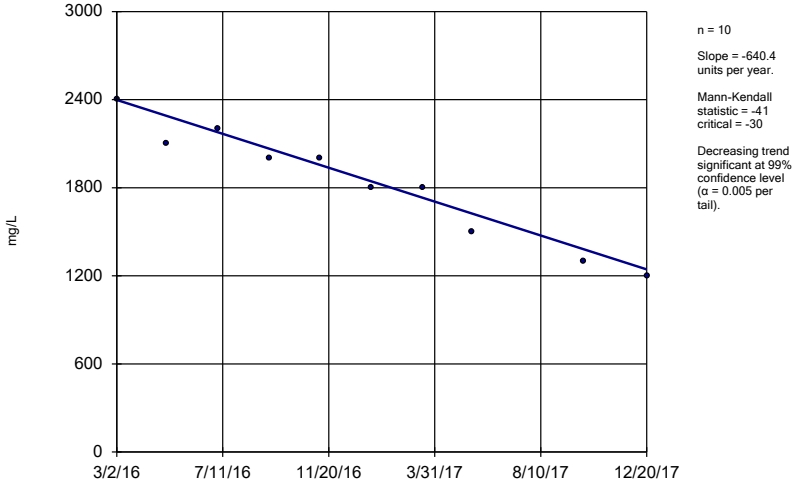
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-206



n = 10

Slope = -640.4 units per year.

Mann-Kendall statistic = -41
critical = -30

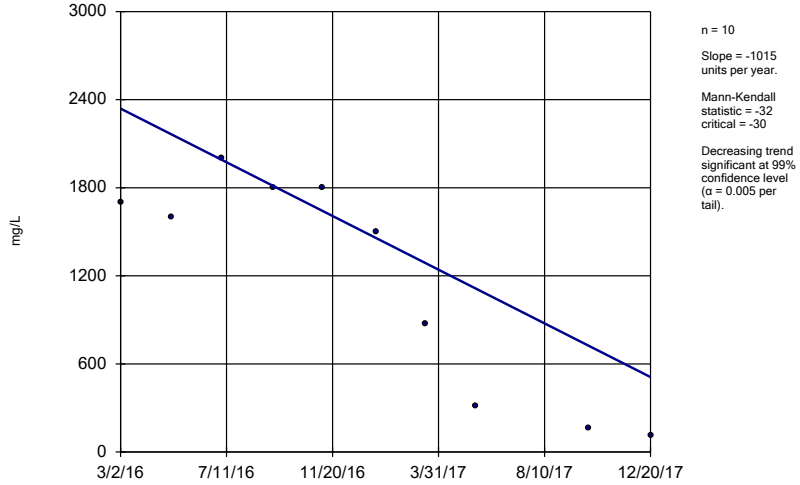
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-201



n = 10

Slope = -1015 units per year.

Mann-Kendall statistic = -32
critical = -30

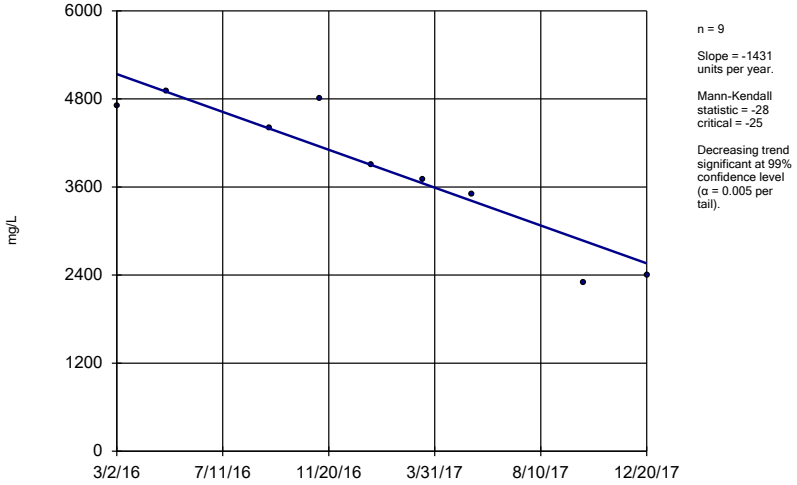
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-206



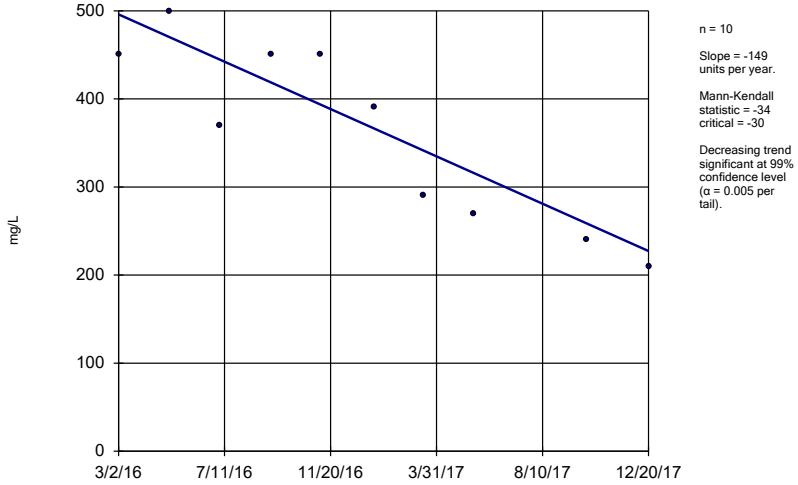
Constituent: Chloride Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-201



Constituent: Sulfate Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series

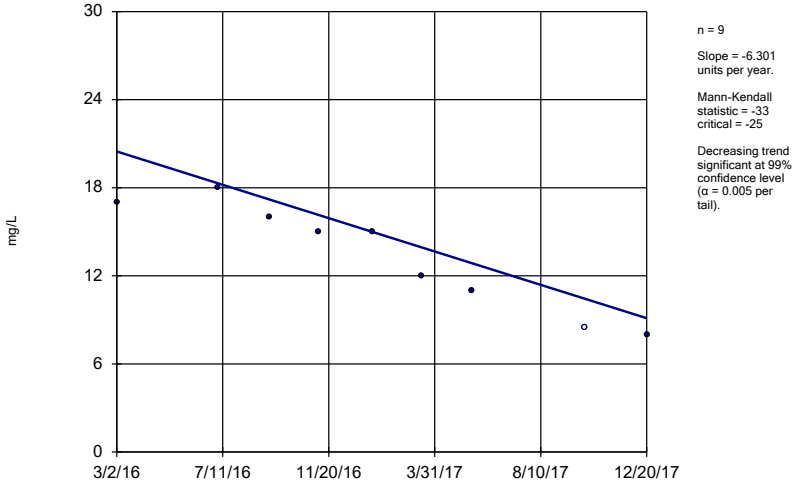
Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-202



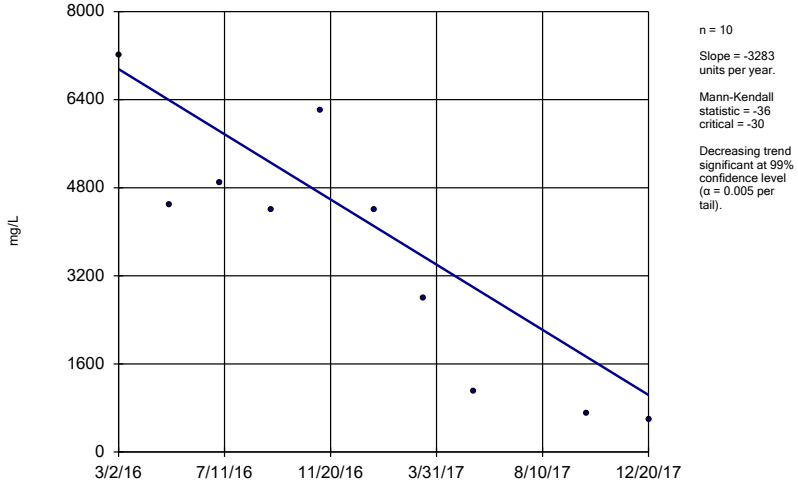
Constituent: Sulfate Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR

Sanitas™ v.9.6.00 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

MW-201



Constituent: Total Dissolved Solids Analysis Run 1/11/2018 10:32 AM View: Trends - 200 Series

Plant Crist Client: Southern Company Data: Plant Crist CCR