

**2017 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT GORGAS
ASH POND**

January 31, 2018

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering



TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SITE LOCATION AND DESCRIPTION 2

3.0 SITE GEOLOGY AND HYDROGEOLOGY 2

 3.1 Physical Setting 2

 3.2 Geology and Hydrogeology 2

 3.3 Uppermost Aquifer 3

 3.4 Flow Interpretation 4

4.0 GROUNDWATER MONITORING SYSTEM 4

 4.1 Monitoring Wells 5

 4.1.1 Upgradient Wells 5

 4.1.2 Downgradient Wells 5

5.0 GROUNDWATER MONITORING HISTORY 7

 5.1 Available Monitoring Data 7

 5.2 Historical Groundwater Flow 7

6.0 GROUNDWATER SAMPLING AND ANALYSIS 9

 6.1 Sampling Event Summary 9

 6.2 Groundwater Sample Collection 9

 6.3 Sample Preservation and Handling 9

 6.4 Chain of Custody 9

 6.5 Laboratory Analysis 10

 6.6 Quality Assurance/Quality Control 11

7.0 GROUNDWATER DATA EVALUATION 11

 7.1 Groundwater Elevation Data Evaluation 11

8.0 BACKGROUND GROUNDWATER QUALITY DATA 13

 8.1 Statistical Methodology and Tests 13

 8.2 Statistical Exceedances 14

 8.3 Verification Sampling 14

 8.4 Appendix IV Background Data 15

9.0 MONITORING PROGRAM STATUS 16

10.0 CONCLUSIONS AND FUTURE ACTIONS 17

11.0 REFERENCES 18

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Geologic Map
- Figure 3 Monitoring Well Location Map
- Figure 4 Potentiometric Surface Map (September 2017)

TABLES

- Table 1 Groundwater Monitoring Network Details
- Table 2 Historical Well Sampling Summary
- Table 3 Historical Groundwater Elevations Summary
- Table 4 Groundwater Elevations (August 2017)

APPENDICES

- Appendix A Groundwater Analytical Data
- Appendix B Statistical Data Evaluation

ABBREVIATIONS

AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
BGS	below ground surface
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
COC	chain of custody
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
m	meter
mg/L	milligram per liter
MSL	mean sea level
MW-	denotes “Monitoring Well”
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
PE	Professional Engineer
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SM	Standard Method(s)
SSI	statistically significant increase
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	United States Geological Survey

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR 257 Subpart D), this 2017 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2017 groundwater monitoring activities at the Plant Gorgas Ash Pond and satisfies the requirements of §257.90(e). Semi-annual monitoring and reporting for Plant Gorgas Ash Pond is performed in accordance with the monitoring requirements §257.90 through §257.94.

2.0 SITE LOCATION AND DESCRIPTION

Alabama Power Company's William C. Gorgas Electric Generating Plant (Plant Gorgas) is located in southeastern Walker County. The physical address is 460 Gorgas Road, Parrish, AL 35580. Plant Gorgas lies in portions of Sections 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, and 29, Township 16 South, Range 6 West and Section 12, 13, and 24, Township 16 South, Range 7 West. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1975; USGS, 1983).

The Ash Pond is located southeast of the main plant on the opposite side of the Black Warrior River. **Figure 1, Site Location Map**, depicts the location of the Plant and Ash Pond with respect to the surrounding area.

3.0 SITE GEOLOGY AND HYDROGEOLOGY

3.1 Physical Setting

Plant Gorgas is in the Black Warrior River basin, an area typified by moderate relief, with river and stream valleys having dendritic drainage patterns. Elevations at the site range from approximately 260 feet above mean sea level (MSL) near the Mulberry Fork to over 600 feet MSL east of the ash pond. The ash pond occupies a localized, narrow valley where ground elevations are higher to the west, north, and east of the ash pond.

3.2 Geology and Hydrogeology

Plant Gorgas lies in the Warrior Basin physiographic region (Sapp and Emplaincourt, 1975), a late Paleozoic basin formed as a result of flexure and sediment loading associated with Appalachian and Ouachita orogenies. The bedrock geology is dominated by clastic sedimentary rocks of the Lower Pottsville Formation as shown on **Figure 2, Site Geologic Map** (GSA, 2010b). The lower Pottsville formation directly underlies Plant Gorgas and extends down to a depth of approximately 2,100 feet below ground surface. This formation is characterized by cyclic sequences (cyclothems) of marginal marine shale/claystone, siltstone, sandstone, conglomerates, and individual coal beds. These depositional cyclothems reflect the sediment balance controlled by 4th or 5th order glacial eustasy, continued basin evolution, and variations in sedimentation rates (Pashin and Raymond, 2004). Deeper stratigraphy is marked by carbonates, shales, chert, and sandstones of Mississippian to Cambrian in age (Raymond et al., 1988).

The Plant Gorgas Ash Pond is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989) of the Lower Pottsville Formation. In general, the Pratt Coal Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal in fining-upward sequences. The Pratt Coal Group generally

contains 3 named coal seams each separated by 25 to 50 feet of intra-burden. In descending order, they are, the Pratt, Nickel Plate, and American coal seams. Locally, Pratt Coal Group strata gently dip (0.5° to 1.0°) to the south and south-southwest.

The Pottsville aquifer system is the primary aquifer in Walker County. Although on a regional scale there are other aquifer systems in the vicinity of Plant Gorgas, the Pottsville aquifer system is the most significant. The nearest exposure of the Valley and Ridge aquifer system occurs in central Jefferson County, approximately 25 miles east of Plant Gorgas. The nearest exposure of the Tuscaloosa aquifer system occurs in northwesternmost Walker County, approximately 30 miles northwest of Plant Gorgas. The Tuscaloosa aquifer system is not considered a primary source of groundwater in Walker County (Stricklin, 1989).

The Pottsville aquifer system is comprised primarily of Pennsylvanian-aged sandstones, shales, conglomerates, and coal. Groundwater flow primarily occurs via coal seams or rock fabric discontinuities such as bedding planes and fractures. Groundwater in the Pottsville aquifer is commonly regarded as confined due to large permeability contrasts within the aquifer (Stricklin, 1989). Recharge to the Pottsville formation is largely through infiltration of precipitation and to a lesser extent, downward seepage of river water at hydraulically favored locations. Recharge is accommodated largely by fracture enhanced permeability. Major recharge zones to the Pottsville Formation are related to major geologic structures such as large fault zones or along systematic fold axes (Pashin, 2007). Although the Pottsville aquifer system is the primary aquifer in Walker County, groundwater use is relatively limited. According to O'Rear et al., 1972, groundwater use accounted for approximately 15% of total water use in Walker County in 1966. By 2005, groundwater use had declined to less than 1% of total water use in Walker County, or 1.14 million gallons per day (mgd) of groundwater out of a total water use of 969.5 mgd (USGS, 2005).

3.3 Uppermost Aquifer

The Pottsville aquifer is the uppermost aquifer beneath the site for groundwater monitoring purposes. Groundwater occurs in the Pratt Coal Group of the Lower Pottsville Formation at the site. The primary occurrences of groundwater in the uppermost aquifer are: (1) coal seams, (2) rock fractures or zones of fracture enhanced permeability, and to a lesser extent (3) bedding plains. Fractured intervals are sporadic across the site and tend to occur with greater density in the upper 100 feet of rock. Generally, groundwater yield at the site is considered low and typical of the Pottsville aquifer system. Wells were generally screened in the Pratt coal seam or across groundwater yielding fractures. Depth to groundwater producing zones were highly variable at the site and generally ranged from 30 to 240 feet BGS. Caliper, natural gamma, normal resistivity, fluid temperature, fluid resistivity logs, and heat pulse flowmeter logs were utilized to

determine groundwater yielding zones. Packer testing was utilized in select borings to further enhance characterization.

Based on published data, groundwater quality produced from the Pottsville Formation can be characterized by high concentrations of sulfate, iron, and other trace metals (Jennings and Cook, 2010). Trace metals in Pottsville Formation groundwater are associated with sulfide minerals contained in organic-rich strata (e.g., Mudstones and Coal Seams) and siliceous/carbonate healed fractures and joints. Trace element enrichment is likely the result of migrating hydrothermal fluids generated during the late Paleozoic Allegheny orogeny (Diehl et al., 2005). Arsenic, antimony, molybdenum, selenium, copper, thallium, and mercury are elevated in Warrior Basin coal strata (Goldhaber et al., 2002).

3.4 Flow Interpretation

Lateral groundwater flow is primarily to the north and south within the uppermost aquifer beneath the site. Paired well locations and heat pulse flowmeter logging indicate that downward vertical flow is an important component of groundwater flow within the uppermost aquifer at the site. The complex lithostratigraphy, sharp permeability contrasts, and fractured nature of the Pottsville Formation contribute to vertical groundwater flow at the site.

4.0 GROUNDWATER MONITORING SYSTEM

Pursuant to §257.91, Plant Gorgas has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The PE-certified groundwater monitoring system for the Ash Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation measurements.

Monitoring wells were screened in the Pottsville Aquifer. The uppermost aquifer beneath the Plant Gorgas Ash Pond corresponds to coal seams and fractured intervals of mudstone and sandstone within the Pratt Coal Group. The monitoring system is designed to monitor water quality as groundwater flows to the north and south across the site. When multiple flow zones were indicated by geophysical logging, paired locations were installed to monitor vertical groundwater flow. Two monitoring wells were screened above the Pratt Coal Group to monitor water quality recharging the uppermost aquifer. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers”, ASTM Subcommittee D18.21, as a guide.

4.1 Monitoring Wells

High-producing water-bearing zones are not prevalent at the site. Twenty-six (26) borings were conducted around the periphery of the ash pond. These borings were extended down through the Pratt Coal Group and to depths between 50 and 350 feet BGS. Geophysical logging and packer testing was conducted to assess groundwater yielding zones within the cored borehole. Monitoring wells were screened across water-producing intervals as determined by the results of these tests. Preliminary purging and developing was then utilized to determine if wells yielded sufficient groundwater for low-flow sampling methods. The groundwater monitoring network is comprised of 16 monitoring wells that produce sufficient water for sampling.

As required by §257.90(e)(1), monitoring well locations referenced to the Ash Pond are presented on **Figure 3, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Construction Details**, summarizes the monitoring well construction details and design purpose for the Plant Gorgas Ash Pond.

4.1.1 Upgradient Wells

Monitoring well locations GS-AP-MW-8 and GS-AP-MW-13 serve as upgradient locations for Gorgas Ash Pond. These well locations were screened above the Pratt Coal Group to monitor water quality recharging the uppermost aquifer.

4.1.2 Downgradient Wells

Monitoring well locations GS-GSA-MW-2, GS-GSA-MW-6S, GS-GSA-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-MW-11, GS-AP-MW-12, GS-AP-MW-14, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, AND GS-AP-MW-21 are utilized as downgradient locations for the Ash Pond. Downgradient locations are located south of the Ash Pond as determined by water level monitoring and potentiometric surface maps constructed for the site.

Table 1. Groundwater Monitoring Well Network Details

Well Name	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Purpose
GS-AP-MW-2	3/10/2016	1321951.86	2067629.25	518.77	522.03	329.77	309.77	Downgradient
GS-AP-MW-6S	1/19/2016	1324533.13	2063864.63	271.57	274.67	237.57	227.57	Downgradient
GS-AP-MW-6D	1/18/2016	1324547.48	2063881.96	271.39	274.50	220.39	210.39	Downgradient
GS-AP-MW-7	1/26/2016	1324250.98	2063518.48	310.05	313.45	223.05	213.05	Downgradient
GS-AP-MW-8	2/26/2016	1323405.23	2062398.47	431.63	434.61	390.63	370.63	Upgradient
GS-AP-MW-9	4/22/2016	1322446.73	2062720.10	417.06	420.04	329.06	309.06	Downgradient
GS-AP-MW-11	2/4/2016	1320953.14	2063257.73	465.34	468.34	348.84	328.84	Downgradient
GS-AP-MW-12	4/20/2016	1320369.19	2063836.90	447.48	450.67	307.48	297.48	Downgradient
GS-AP-MW-13	2/4/2016	1319377.84	2064083.37	461.03	464.20	371.03	351.03	Upgradient
GS-AP-MW-14	1/30/2016	1318393.75	2063787.88	469.60	472.40	279.60	269.60	Downgradient
GS-AP-MW-15	2/8/2016	1317267.07	2063959.21	452.21	454.89	272.21	262.21	Downgradient
GS-AP-MW-16D	4/20/2016	1316152.70	2064850.23	459.09	462.27	259.09	239.09	Downgradient
GS-AP-MW-17	2/11/2016	1314955.86	2066094.14	528.78	531.88	295.28	285.28	Downgradient
GS-AP-MW-18	3/29/2016	1315052.82	2066824.84	400.17	403.39	320.17	300.17	Downgradient
GS-AP-MW-19	4/29/2016	1316325.43	2066775.98	492.60	495.58	337.60	317.60	Downgradient
GS-AP-MW-21	2/20/2016	1319122.82	2067233.10	506.51	509.48	283.51	273.51	Downgradient

Notes:

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

5.0 GROUNDWATER MONITORING HISTORY

As required by §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 related activities performed prior to 2017.

5.1 Available Monitoring Data

In accordance with §257.94(b), the detection groundwater program was implemented by collecting 8 independent samples. Samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV. Background sampling was performed over the period from August 2016 to June 2017.

Following background monitoring, the initial detection monitoring event was completed by collecting an additional round of groundwater samples in August 2017. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to §257.94(a). Analytical data from the background and initial groundwater monitoring events is included as **Appendix A, Groundwater Analytical Data**, in accordance with the requirements of §257.90(e)(3).

Table 2, Historical Well Sampling Summary, presents a summary of groundwater sampling events completed at the site for the preceding year, as well as background samples collected prior to 2017. Table 2 also identifies the purpose of the sampling event.

5.2 Historical Groundwater Flow

Historical potentiometric data from the site show that lateral groundwater flow is primarily to the north and south within the uppermost aquifer beneath the site. Paired well locations and heat pulse flowmeter logging indicate that downward vertical flow is an important component of groundwater flow within the uppermost aquifer at the site. The complex lithostratigraphy, sharp permeability contrasts, and fractured nature of the Pottsville Formation contribute to vertical groundwater flow at the site.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 0.2 to 6 feet are typical at the site. **Figure 4, Potentiometric Surface Map (August 2017)**, confirms that groundwater flow direction is consistent despite seasonal fluctuations. Groundwater elevation data indicates that water levels tend to be higher in the spring and early summer and lower during the fall and winter seasons.

Table 3, Historical Groundwater Elevations Summary below provides a summary of water level data for the site.

Table 2. Historical Well Sampling Summary									
	Background								Detection
Event	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	D.1
Date	8/2016	9/2016	10/2016	12/2016	2/2017	3/2017	4/2017	6/2017	8/2017

Notes: (1) B.# indicates background event
 (2) D.# indicates detection monitoring event.

Table 3. Historical Groundwater Elevations Summary				
Well ID	Average GW Elevation (ft MSL)	Highest GW Elevation (ft MSL)	Lowest GW Elevation (ft MSL)	GW Elevation Variation (ft)
GS-AP-MW-2	376.54	376.71	376.28	0.43
GS-AP-MW-6S	257.95	258.77	257.36	1.41
GS-AP-MW-6D	263.77	264.52	263.02	1.50
GS-AP-MW-7	305.44	305.73	305.29	0.44
GS-AP-MW-8	388.33	389.87	386.81	3.06
GS-AP-MW-9	372.91	375.28	369.76	5.52
GS-AP-MW-11	381.86	382.10	381.62	0.48
GS-AP-MW-12	380.81	380.92	380.70	0.22
GS-AP-MW-13	393.49	394.80	392.67	2.13
GS-AP-MW-14	371.47	371.62	371.26	0.36
GS-AP-MW-15	373.43	373.86	373.09	0.77
GS-AP-MW-16D	318.87	323.51	315.57	7.94
GS-AP-MW-17	347.59	355.00	349.16	5.84
GS-AP-MW-18	351.34	355.05	349.30	5.75
GS-AP-MW-19	382.56	383.05	381.86	1.19
GS-AP-MW-21	346.44	349.53	344.04	5.49

*Groundwater elevations are referenced to NAVD88

6.0 GROUNDWATER SAMPLING AND ANALYSIS

6.1 Sampling Event Summary

Groundwater sampling for the initial detection monitoring event was performed in August 2017. Samples were analyzed for the constituents listed in Appendix III. Analytical data from the groundwater monitoring events are included as Appendix A.

6.2 Groundwater Sample Collection

Groundwater samples were collected by APC Field Services in accordance with §257.93(a). All monitoring wells at the Plant Gorgas Ash Pond are equipped with a dedicated bladder pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

- 0.1 standard units for pH
- 5% for specific conductance
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater)
- Turbidity measurements less than 5 NTU
- Temperature and ORP – record only, no stabilization criteria

During purging and sampling a SmarTROLL™ instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol.

6.3 Sample Preservation and Handling

Groundwater samples were collected within the designated size and type of containers required for specific parameters. Sample bottles were pre-preserved by the laboratory and did not require field preservation. Where temperature control was required, samples were placed in an ice-packed cooler.

6.4 Chain of Custody

All samples were handled under COC procedures beginning in the field through delivery to the laboratory. The COC forms contain the following information:

- Sample destination and transporter,
- Sample identification numbers,
- Signature of collector,
- Date and time of collection,
- Identification of monitoring well,
- Number of sample containers,
- Parameters requested for analysis,
- Signature of person(s) involved in the chain of possession, and
- Inclusive dates of possession.

6.5 Laboratory Analysis

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

Laboratory analyses were performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Test America, Inc. (TAL), of Pensacola, Florida and St. Louis, Missouri. Both APCEL and TAL are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all parameters analyzed. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

6.6 Quality Assurance/Quality Control

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 detection samples. Equipment blanks and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in Appendix A.

Groundwater quality data for the most recent sampling event was validated following guidance from the EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits.

Where appropriate, validation qualifiers and flags are applied to the data using the procedures in EPA National Functional Guidelines for Inorganic Data Review (USEPA, 2014), as guidance. Flagged data is identified in the statistical analysis reports.

7.0 GROUNDWATER DATA EVALUATION

7.1 Groundwater Elevation Data Evaluation

Prior to recording water levels each well was opened and allowed to equilibrate to atmospheric pressure. Within a 24-hour period, depths to groundwater were measured to the nearest 0.01 foot with an electronic water level indicator. Depths are referenced from the top of the inner PVC well casing. Groundwater elevations are calculated by subtracting the depth to groundwater from surveyed top of casing (TOC) elevations.

During the initial detection monitoring event, static groundwater elevations obtained prior to purging and sampling ranged from 257.67 to 393.71 feet MSL. Groundwater levels for the most recent sampling event are included in **Table 4, Groundwater Elevations (August 2017)**.

The most recent potentiometric surface map presented in **Figure 4, Potentiometric Surface Map (August 2017)**, shows that lateral groundwater flow is primarily to the north and south within the uppermost aquifer beneath the site.

Table 4. Groundwater Elevations (August 2017)

Well ID	TOC Elev (ft MSL)	Depth to GW (ft TOC)	GW Elevation
GS-AP-MW-2	522.03	145.56	376.47
GS-AP-MW-6S	274.67	16.97	257.70
GS-AP-MW-6D	274.50	11.20	263.30
GS-AP-MW-7	313.45	8.10	305.35
GS-AP-MW-8	434.61	44.74	389.87
GS-AP-MW-9	420.04	45.23	374.81
GS-AP-MW-11	468.34	124.63	343.78
GS-AP-MW-12	450.67	86.61	381.73
GS-AP-MW-13	464.20	69.95	380.72
GS-AP-MW-14	472.40	71.42	392.78
GS-AP-MW-15	454.89	100.94	371.46
GS-AP-MW-16D	462.27	141.83	320.44
GS-AP-MW-17	531.88	180.32	351.56
GS-AP-MW-18	403.39	51.72	351.67
GS-AP-MW-19	495.58	112.57	383.01
GS-AP-MW-21	509.48	161.90	347.58

8.0 BACKGROUND GROUNDWATER QUALITY DATA

Groundwater elevation data and potentiometric surface maps were utilized to determine upgradient or “background” monitoring well locations. These well locations provide representative samples of groundwater quality as it enters the site.

8.1 Statistical Methodology and Tests

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limit methods, combined with a 1-of-2 verification resampling strategy for all Appendix III parameters. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there has been an initial statistically significant increase (SSI) over background groundwater quality.

Time series plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers are formally tested using Tukey’s box plot method when applicable, and when identified, are flagged in the computer database and deselected prior to construction of statistical limits.

No outliers were identified for any of the Appendix III parameters at any of the wells. When any values are identified as outliers, they are plotted in a lighter font on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

Seasonal patterns were not observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

The Sen’s Slope/Mann Kendall trend test was used to evaluate all background data at each well to identify statistically significant increasing or decreasing trends. The results of the trend analyses showed a few statistically significant increasing and decreasing trends. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were recommended to any data sets.

Prediction limits were constructed as recommended in the USEPA Unified Guidance, and based on the following:

- Annual false positive rate of 10%
- 1-of-2 verification resample plan option for Interwell Prediction Limits
- Semi-annual sampling
- Constituents = 7 (Appendix III)
- Downgradient wells = 14

Parametric prediction limits are used when the screened historical data follow a normal or transformed-normal distribution. When data could not be normalized or when the majority of data were non-detects, a non-parametric test was utilized. The confidence level associated with both tests is greater than 99%. The distribution of data was tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (USEPA, 2009), data were analyzed using either parametric or non-parametric prediction limits.

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

- Statistical analyses are not performed on analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in the background, simple substitution of one-half the reporting limit may be utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data.
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

A summary table of the statistical limits accompanies the prediction limits in **Appendix B, Statistical Data Evaluation**.

8.2 Statistical Exceedances

Analytical data from the initial detection monitoring event in August 2017 at the Ash Pond was statistically analyzed in accordance with the PE-certified statistical methods described above. Based on the statistical analysis included in Appendix B, SSIs of the prediction limit were identified. Summary tables identifying the SSIs are included in Appendix B.

8.3 Verification Sampling

The statistical methods incorporate the option of resampling to verify SSIs. Verification sampling was not conducted for the initial detection monitoring event; therefore, the initial SSIs are treated as verified.

8.4 Appendix IV Background Data

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

9.0 MONITORING PROGRAM STATUS

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

10.0 CONCLUSIONS AND FUTURE ACTIONS

In accordance with §257.94(b), eight (8) independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of August 2016 to June 2017. Groundwater sampling for the first detection monitoring event was performed in August 2017. Constituents listed in Appendix III were collected and analyzed for detection monitoring. APC will perform the following future actions:

- Conduct alternate source demonstration or complete groundwater sampling for Assessment Monitoring within 90 days of determining the SSI, and
- Conduct the first semi-annual detection monitoring event by April 2018.

11.0 REFERENCES

- ASTM Standard D5092, 2004(2010)e1, Standard Practice for Design and Installation of Groundwater Monitoring Wells, ASTM International, West Conshohocken, PA, DOI 10.1520/D5092-04R10E01, www.astm.org
- Diehl, S.F., Goldhaber, M.B., and Hatch, J.R., 2004, Modes of occurrence of mercury and other trace-elements in coals from the warrior field, Black Warrior Basin, Northwestern Alabama, *International Journal of Coal Geology*, v. 59, p. 193-208
- Geological Survey of Alabama (GSA), 2010b, Digital Geologic Map of Alabama, URL: <http://www.gsa.state.al.us/index.html>, accessed November, 2010.
- Goldhaber, M.B., Lee, R.C., Hatch, J.R., Pashin, J.C., and Treworgy, J., 2000, Distribution of a suite of elements including arsenic and mercury in Alabama coal, U.S. Geological Survey Miscellaneous Field Study Map MF-223
- Goldhaber, M.B., Lee, R.C., Hatch, J.R., Pashin, J.C., and Treworgy, J., 2002, The role of large-scale fluid flow in subsurface arsenic enrichment, In: Welch, A., Stollenwerk, K (Eds.), *Arsenic in Ground Water: Occurrence and Geochemistry*, v. 5, p. 127-176
- Jennings, S.P., and Cook, M.R., 2010, A Report to the Hanceville Water Works and Sewer Board, Open File Report 1001
- Pashin, J.C., and Raymond, D.E., 2004, Glacial-eustatic control of coalbed methane reservoir distribution (Pottsville Formation; Lower Pennsylvanian) in the Black Warrior Basin of Alabama: Tuscaloosa, Alabama, University of Alabama College of Continuing Studies, 2004 International Coalbed Methane Symposium Proceedings, Paper 0413, 15 p.
- Pashin, J.C., 2007, Hydrodynamics of Coalbed Methane Reservoirs in the Black Warrior Basin: Key to Understanding Reservoir Performance and Environmental Issues, *Applied Geochemistry*, v. 22, I. 10, p. 2257-2272
- Raymond, D.E., Osborne, W.E., Copeland, C.W. Jr, and Neathery, T.L., 1988, Alabama Stratigraphy: Alabama Geological Survey Circular, v. 140, p. 1-97
- Sapp, C.D., and Emplaincourt, J., 1975, Physiographic regions of Alabama, Special Map 168, Geological Survey of Alabama
- Stricklin, V.E., 1989, Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama: Area 3, U.S. Geological Survey, Water-Resources Investigations Report 88-4120
- U.S. Environmental Protection Agency (EPA), 2004, Evaluation of Sampling and Field-Filtration Methods for the Analysis of Trace Metals In Groundwater Project Summary, EPA/600/SR-94/119
- 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

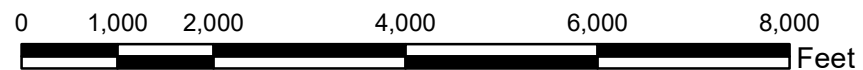
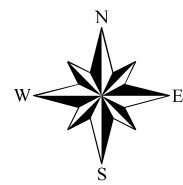
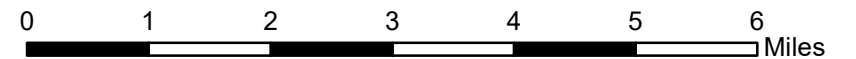
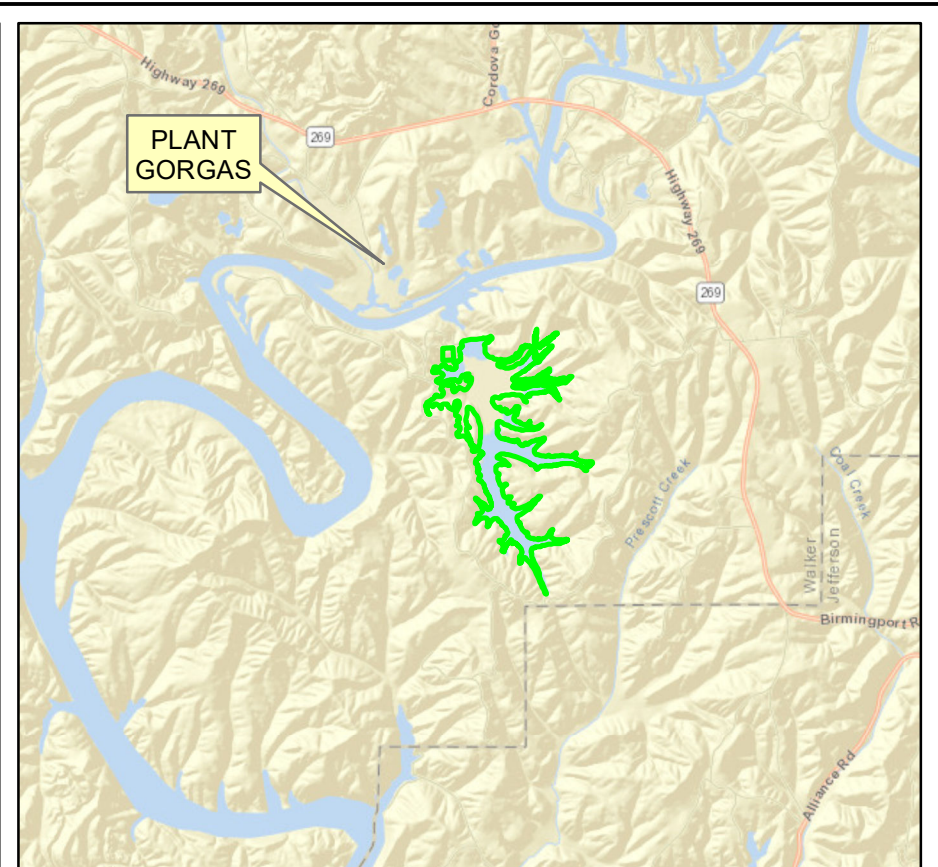
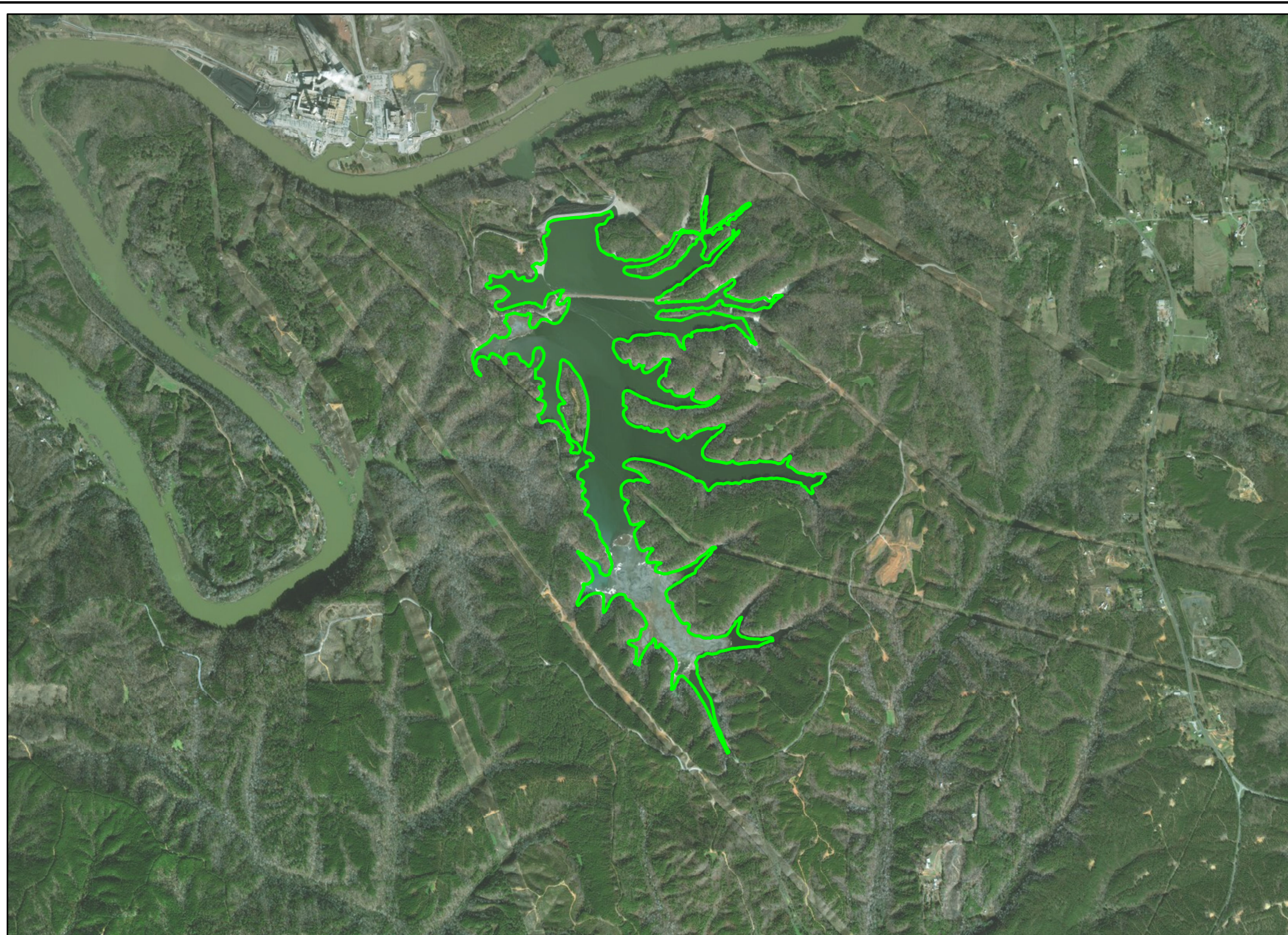
USEPA. 2011. Data Validation Standard Operating Procedures. Science and Ecosystem Support Division. Region IV. September

USEPA. 2014. National Functional Guidelines for Inorganic Superfund Data Review. Office of Superfund Remediation and Technology Innovation (OSRTI). August

USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 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

Ward II, W.E., Barnett, R.L., Rheams, L.J., 1989, Coal Resources of Walker County, Alabama, Geological Survey of Alabama, Special Map 205

Figures



Legend

 Ash Pond Boundary

Copyright © 2018 Southern Company Services, Inc. All Rights Reserved. This document contains proprietary, confidential, 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 Generation
Earth Science and Environmental Engineering**

FOR

Alabama Power Company

**PLANT GORGAS
ASH POND
FIGURE 1
SITE LOCATION MAP**

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		ES4063-S1	1		

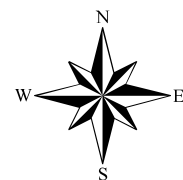


Legend

Ash Pond Boundary

Geologic Units

Pottsville Formation (upper part), Appalachian Plateaus



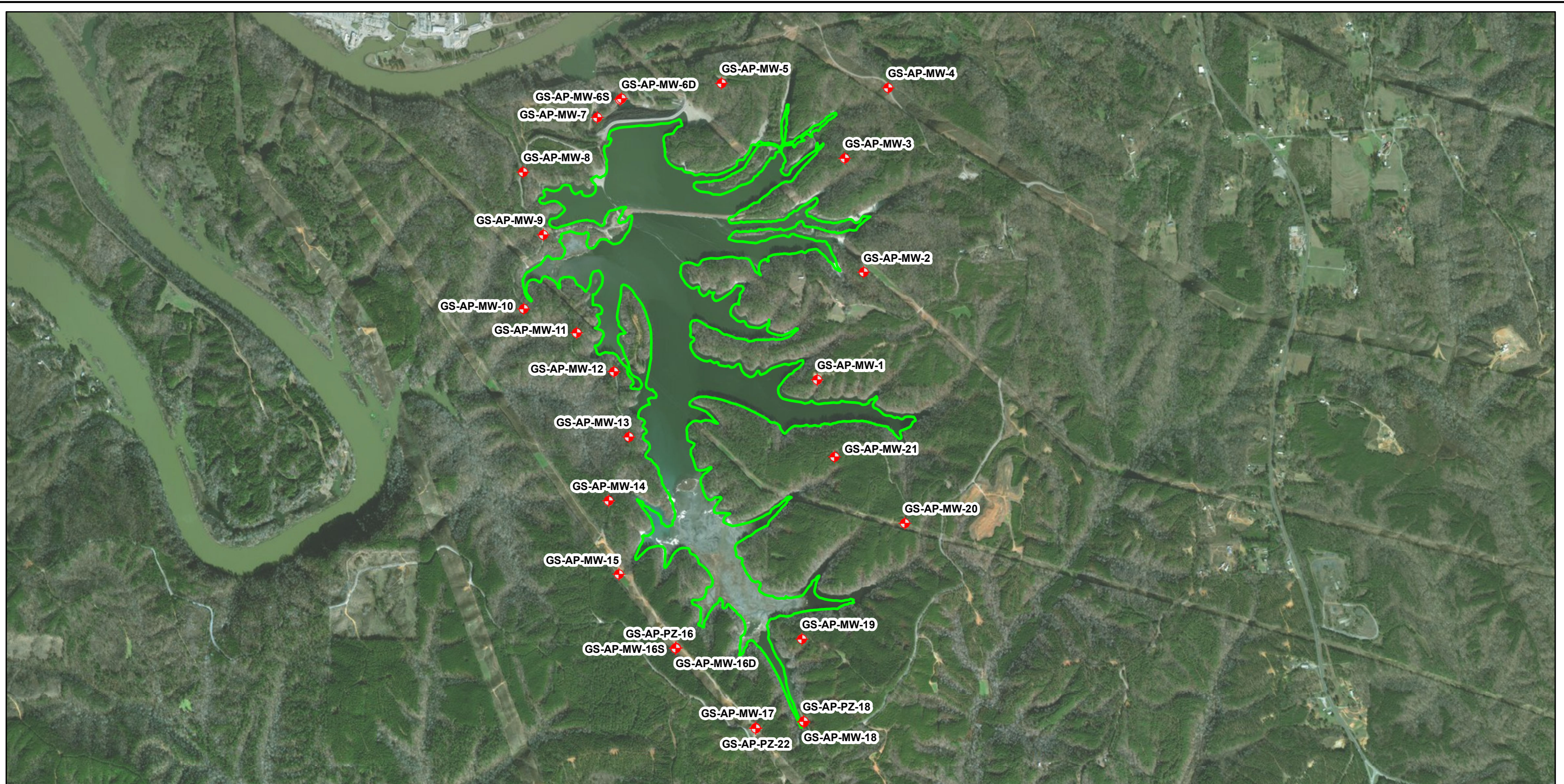
Copyright © 2018 Southern Company Services, Inc. All Rights Reserved. This document contains proprietary, confidential, and/or trade secret information of the subsidiaries of The Southern Company or of third parties. It is intended for use only by employees of, or authorized contractors of, the subsidiaries of the Southern Company. Unauthorized possession, use, distribution, copying, dissemination, or disclosure of any portion is prohibited.

**Southern Company Generation
Earth Science and Environmental Engineering**



FOR

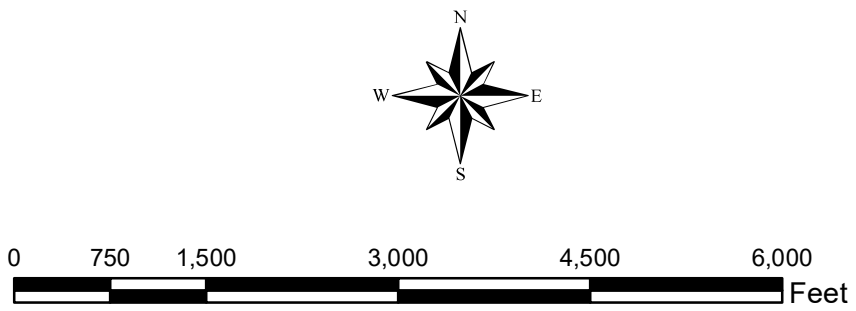
**PLANT GORGAS
ASH POND
FIGURE 2
SITE GEOLOGIC MAP**

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		ES4063-S2	1		



Legend

-  Monitoring Well
-  Ash Pond Boundary



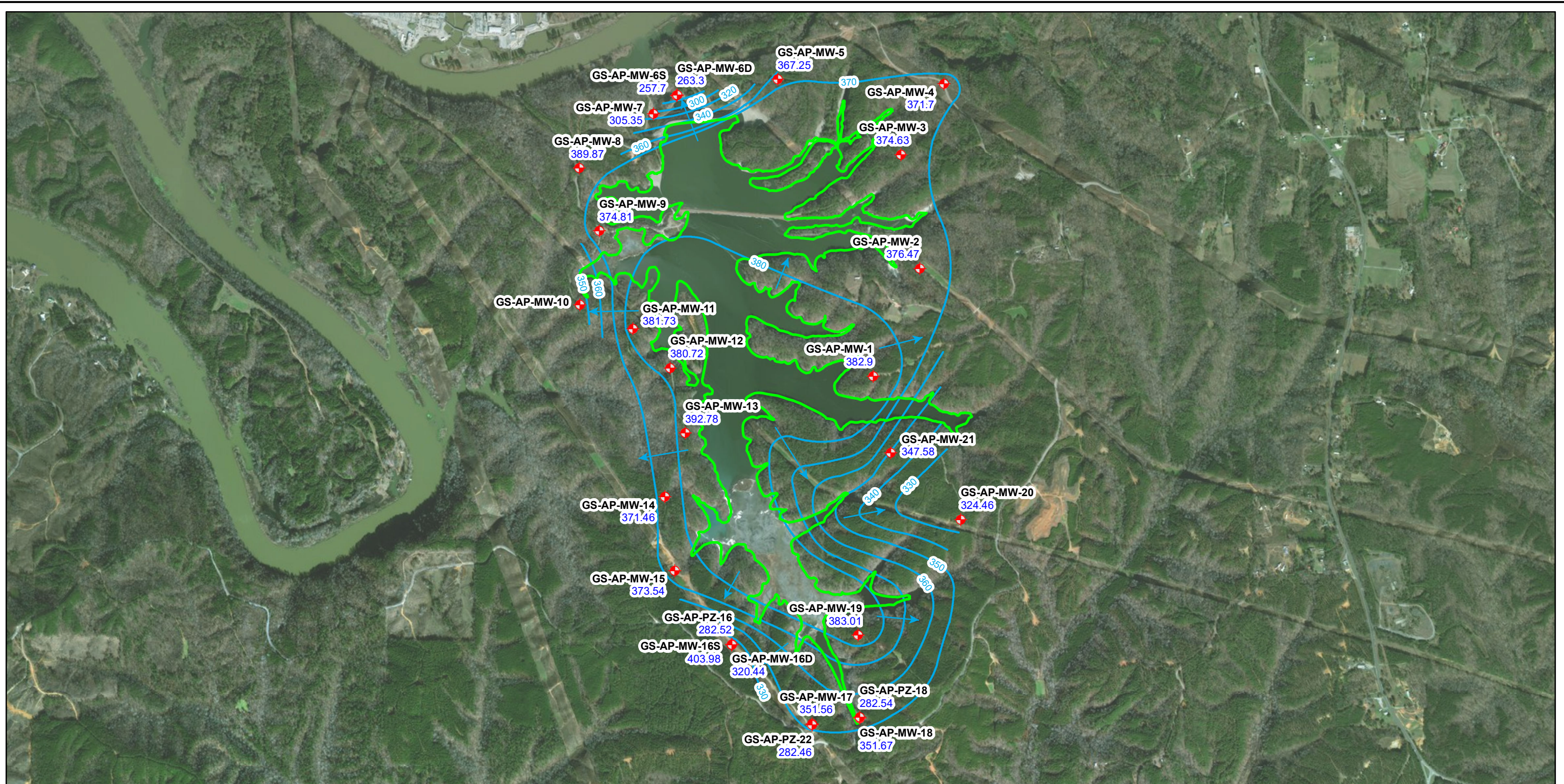
Copyright © 2018 Southern Company Services, Inc. All Rights Reserved. This document contains proprietary, confidential, and/or trade secret information of the subsidiaries of The Southern Company or of third parties. It is intended for use only by employees of, or authorized contractors of, the subsidiaries of the Southern Company. Unauthorized possession, use, distribution, copying, dissemination, or disclosure of any portion is prohibited.

**PLANT GORGAS
ASH POND
FIGURE 3
MONITORING WELL LOCATION MAP**

**Southern Company Generation
Earth Science and Environmental Engineering**

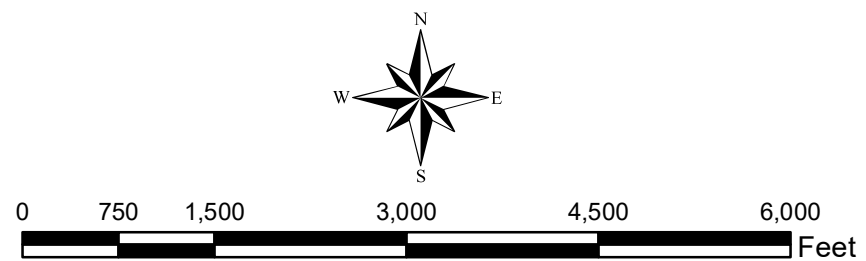
FOR

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:18k		ES4063-S3	1		



Legend

- Monitoring Well
- AshPond_Boundary
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction



NOTE: NAVD88 indicates North American Vertical Datum of 1988.

Copyright © 2018 Southern Company Services, Inc. All Rights Reserved. This document contains proprietary, confidential, 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.

**PLANT GORGAS
ASH POND
FIGURE 4
POTENTIOMETRIC SURFACE MAP
AUGUST 21, 2017**

**Southern Company Generation
Earth Science and Environmental Engineering**

FOR

Alabama Power Company

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:18k		ES4063-S4	1		

Appendix A

Groundwater Analytical Data

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_33

Project/Site : Gorgas Ash Pond
Parrish, AL 35580

For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242

Attention : Dustin Brooks & Greg Dyer

Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_33

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW19566	572158	572160	572162	WMWGORAP_33
AW19567	572158	572160	572162	WMWGORAP_33
AW19568	572158	572160	572162	WMWGORAP_33
AW19569	572158	572160	572162	WMWGORAP_33
AW19570	572158	572160	572162	WMWGORAP_33
AW19571	572158	572160	572162	WMWGORAP_33
AW19572	572158	572160	572162	WMWGORAP_33
AW19574	572158	572160	572162	WMWGORAP_33
AW19575	572158	572160	572162	WMWGORAP_33
AW19576	572158	572160	572162	WMWGORAP_33
AW19577	572159	572161	572163	WMWGORAP_33
AW19578	572159	572161	572163	WMWGORAP_33
AW19579	572159	572161	572163	WMWGORAP_33
AW19580	572159	572161	572163	WMWGORAP_33
AW19672	572159	572161	572163	WMWGORAP_33
AW19673	572159	572161	572163	WMWGORAP_33
AW19674	572159	572161	572163	WMWGORAP_33
AW19675	572159	572161	572163	WMWGORAP_33
AW19676	572159	572161	572163	WMWGORAP_33
AW19677	572159	572161	572163	WMWGORAP_33
AW19678	572204	572205	572206	WMWGORAP_33
AW19573	573134	573135	573136	WMWGORAP_33
AW19581	573134	573135	573136	WMWGORAP_33

4. All of the above samples were analyzed and prepared by EPA 300.0.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exception: the blank for anion sulfate in batch 572206 presented a concentration above the MDL of 0.3, at 0.415 mg/L . Since the concentration of sulfate in associated sample AW19678 (4.398 mg/L) was above 10x the associated blank concentration, no data qualification was necessary.
- All laboratory fortified blanks (LFB) were within acceptance criteria for the anions requested. No closing LFB was listed or run for the dilution re-analyses for chloride or sulfate in batch 572159 & 572163, no closing LFB was listed or run for the dilution re-analysis for sulfate in batch 573136. Due to absence of a closing LFB, the reported results for the following sample dilutions for chloride and for sulfate are qualified as quantitatively estimated with indeterminate bias direction and magnitude: for chloride, AW19578 only, and for sulfate, AW19577, AW19580, AW19672 and AW19674; the reported result for the following sample dilution for sulfate is qualified as quantitatively estimated with indeterminate bias direction and magnitude: AW19581.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met. It is noted that the LFM for the sample dilution sequence for sulfate in batch 573136 was diluted 10x prior to spiking, and the diluted LFM sample spiked at 10x normal concentration, with acceptable recovery.
- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.



7. Sample AW19578 was re-analyzed for chloride at a 2x dilution, and samples AW19577, AW19580, AW19581, AW19672 and AW19674 were re-analyzed for sulfate at a 10x dilution, due to undiluted results exceeding the calibrated range of the detector. The dilution results for chloride and sulfate for these samples should be used; reporting limit (RL) values are adjusted upward to reflect the dilution factor applied.

<u>Sample ID</u>		<u>Analyte</u>		<u>Dilution Factor</u>
AW19577		Sulfate		10X
AW19578		Chloride		2X
AW19580		Sulfate		10X
AW19672		Sulfate		10X
AW19674		Sulfate		10X
AW19581		Sulfate		10X

8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Gorgas Ash Pond

WMWGORAP_33

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW19566	20160824A	WMWGORAP_33
AW19567	20160824A	WMWGORAP_33
AW19568	20160824A	WMWGORAP_33
AW19569	20160824A	WMWGORAP_33
AW19570	20160824A	WMWGORAP_33
AW19571	20160824A	WMWGORAP_33
AW19572	20160824A	WMWGORAP_33
AW19574	20160824A	WMWGORAP_33
AW19575	20160824A	WMWGORAP_33
AW19576	20160824A	WMWGORAP_33
AW19577	20170202	WMWGORAP_33
AW19578	20170202	WMWGORAP_33
AW19579	20170202	WMWGORAP_33
AW19580	20170202	WMWGORAP_33
AW19672	20170202	WMWGORAP_33
AW19673	20170202	WMWGORAP_33
AW19674	20170202	WMWGORAP_33
AW19675	20170202	WMWGORAP_33
AW19676	20170202	WMWGORAP_33
AW19677	20170202	WMWGORAP_33
AW19678	20160824C	WMWGORAP_33
AW19573	20160824	WMWGORAP_33
AW19581	20160824	WMWGORAP_33

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 20160824, which is a dissolved batch therefore does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met
7. All samples were analyzed without a dilution with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve. For batches 20160824A and 20160824 the undiluted dilution factor was 1.015. The following samples were diluted 1: 10 by adding 9mL of water to 1mL of the undiluted digested sample for a total volume of 10 mL. This gave a dilution factor of 10.15x. For batch 20170202 the undiluted dilution factor was 1.0X. The following samples were diluted 1: 10 by adding 9mL of water to 1mL of the undiluted digested sample for a total volume of 10 mL. This gave a dilution factor of 10X.



Sample ID	Analyte	Dilution Factor
AW19570	Calcium	10.15X
AW19571	Calcium	10.15X
AW19572	Calcium	10.15X
AW19576MS	Calcium	10.15X
AW19576MSD	Calcium	10.15X
AW19573	Calcium	10.15x
AW19577	Calcium	10X
AW19672	Calcium	10X
AW19673	Calcium	10X
AW19674	Calcium	10X

8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_33

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW19566	572132	WMWGORAP_33
AW19567	572132	WMWGORAP_33
AW19568	572132	WMWGORAP_33
AW19569	572132	WMWGORAP_33
AW19570	572132	WMWGORAP_33
AW19571	572132	WMWGORAP_33
AW19572	572132	WMWGORAP_33
AW19574	572132	WMWGORAP_33
AW19575	572132	WMWGORAP_33
AW19576	572132	WMWGORAP_33
AW19577	572133	WMWGORAP_33
AW19578	572133	WMWGORAP_33
AW19579	572133	WMWGORAP_33
AW19580	572133	WMWGORAP_33
AW19672	572133	WMWGORAP_33
AW19673	572133	WMWGORAP_33
AW19674	572133	WMWGORAP_33
AW19675	572133	WMWGORAP_33
AW19676	572133	WMWGORAP_33
AW19677	572133	WMWGORAP_33
AW19678	572134	WMWGORAP_33
AW19573	572761	WMWGORAP_33
AW19581	572761	WMWGORAP_33

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 572761, which is a dissolved batch therefore does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_33

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW19566	572092	WMWGORAP_33
AW19567	572092	WMWGORAP_33
AW19568	572092	WMWGORAP_33
AW19569	572092	WMWGORAP_33
AW19570	572092	WMWGORAP_33
AW19571	572092	WMWGORAP_33
AW19572	572093	WMWGORAP_33
AW19574	572093	WMWGORAP_33
AW19575	572093	WMWGORAP_33
AW19576	572093	WMWGORAP_33
AW19577	572093	WMWGORAP_33
AW19578	572093	WMWGORAP_33
AW19579	572093	WMWGORAP_33
AW19580	572093	WMWGORAP_33
AW19672	572093	WMWGORAP_33
AW19673	572093	WMWGORAP_33
AW19573	573219	WMWGORAP_33
AW19581	573219	WMWGORAP_33
AW19674	573220	WMWGORAP_33
AW19675	573220	WMWGORAP_33
AW19676	573220	WMWGORAP_33
AW19677	573220	WMWGORAP_33
AW19678	573220	WMWGORAP_33

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_33

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW19566	571851	WMWGORAP_33
AW19567	571851	WMWGORAP_33
AW19568	571851	WMWGORAP_33
AW19569	571851	WMWGORAP_33
AW19570	571851	WMWGORAP_33
AW19571	571851	WMWGORAP_33
AW19572	571851	WMWGORAP_33
AW19574	571852	WMWGORAP_33
AW19575	571852	WMWGORAP_33
AW19576	571852	WMWGORAP_33
AW19577	571852	WMWGORAP_33
AW19578	571852	WMWGORAP_33
AW19579	571852	WMWGORAP_33
AW19580	571852	WMWGORAP_33
AW19672	571857	WMWGORAP_33
AW19673	571857	WMWGORAP_33
AW19674	571857	WMWGORAP_33
AW19675	571857	WMWGORAP_33
AW19676	571857	WMWGORAP_33
AW19677	571857	WMWGORAP_33
AW19678	571857	WMWGORAP_33

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The reporting limit for TDS was incorrectly listed as 2.5 mg/L. Sample AW19676 has been changed to Not Detected.



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%, with the exception of batch 571857, which was greater than 5% due to the sample amount being less than 3 times the RL.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW19568, AW19574 and AW19676 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW19566

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	J 0.00115	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.0150	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.117	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	J 0.0955	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	10.5	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00209	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	0.393	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.142	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		100	640	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	15.6	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	1.16	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		2	0.6	2	102	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW19566

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19571 Mercury, Total by CVAA	mg/L	0.0000687	0.0005	0.004	0.00392	0.00388	0.00382	0.0034 to 0.0046	98.0	70 to 130	1.19	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW19566

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19572	Solids, Dissolved	mg/L	1.0	25				234	53.0	40 to 60			0.213	5
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5		9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6		6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60		0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW19567

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.316	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	J 0.0266	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	33.0	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0360	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	222	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	2.60	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	J 0.117	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	13.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW19567

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit
			Limit	Spike					Rec	Limit		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20
AW19571 Mercury, Total by CVAA	mg/L	0.0000687	0.0005	0.004	0.00392	0.00388	0.00382	0.0034 to 0.0046	98.0	70 to 130	1.19	20
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW19567

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19572	Solids, Dissolved	mg/L	1.0	25			234	53.0	40 to 60			0.213	5
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW19568

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW19568

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19571 Mercury, Total by CVAA	mg/L	0.0000687	0.0005	0.004	0.00392	0.00388	0.00382	0.0034 to 0.0046	98.0	70 to 130	1.19	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW19568

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec Rec	Rec Limit	Prec	Prec Limit
AW19572	Solids, Dissolved	mg/L	1.0	25			234	53.0	40 to 60			0.213	5
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW19569

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	J 0.00189	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.249	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	36.4	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0425	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00283	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	222	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	5.17	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	J 0.154	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	10.6	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW19569

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19571 Mercury, Total by CVAA	mg/L	0.0000687	0.0005	0.004	0.00392	0.00388	0.00382	0.0034 to 0.0046	98.0	70 to 130	1.19	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW19569

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19572	Solids, Dissolved	mg/L	1.0	25			234	53.0	40 to 60			0.213	5
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW19570

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.184	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		10.15	1.0	5.0	47.2	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0121	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	221	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	2.91	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	J 0.161	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	12.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW19570

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19571 Mercury, Total by CVAA	mg/L	0.0000687	0.0005	0.004	0.00392	0.00388	0.00382	0.0034 to 0.0046	98.0	70 to 130	1.19	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW19570

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5		9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19572	Solids, Dissolved	mg/L	1.0	25				234	53.0	40 to 60			0.213	5
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6		6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60		0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW19571

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.192	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		10.15	1.0	5.0	46.0	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0120	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	224	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	2.96	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	J 0.166	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	12.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW19571

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19571 Mercury, Total by CVAA	mg/L	0.0000687	0.0005	0.004	0.00392	0.00388	0.00382	0.0034 to 0.0046	98.0	70 to 130	1.19	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW19571

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19572	Solids, Dissolved	mg/L	1.0	25			234	53.0	40 to 60			0.213	5
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW19572

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.245	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		10.15	1.0	5.0	43.5	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0146	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00217	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	235	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	6.70	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	J 0.140	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	20.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW19572

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046	95.5	70 to 130	2.13	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW19572

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19572	Solids, Dissolved	mg/L	1.0	25				234	53.0	40 to 60			0.213	5
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6		6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60		0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5		9.01	19.5	18 to 22	102	80 to 120	0.111	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-11 Diss

Laboratory ID Number: AW19573

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Barium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	0.222	mg/L
* Beryllium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Boron, Dissolved	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	J 0.0208	mg/L
* Calcium, Dissolved	HRG	8/24/2016	EPA 200.7		10.15	1.0	5.0	43.1	mg/L
* Cadmium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Chromium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0135	mg/L
* Molybdenum, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	J 0.00241	mg/L
* Lead, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Selenium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Thallium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Chloride, Dissolved	SES	8/19/2016	EPA 300.0		1	0.04	0.25	6.74	mg/L
Fluoride, Dissolved	SES	8/19/2016	EPA 300.0		1	0.01	0.3	J 0.133	mg/L
Sulfate, Dissolved	SES	8/19/2016	EPA 300.0		1	0.3	1	20.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY:Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-11 Diss

Laboratory ID Number: AW19573

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AW19581	Boron, Dissolved	mg/L	0.00145	0.044	1.00	2.44	2.41	0.922	0.85 to 1.15		100	70 to 130	1.24	20
AW19581	Lead, Dissolved	mg/L	0.000000957	0.0022	0.10	0.100	0.0995				100	70 to 130	0.890	20
AW19581	Lithium, Dissolved	mg/L	0.000118	0.022	0.20	0.348	0.343	0.190	0.17 to 0.23		104	70 to 130	1.45	20
AW19581	Calcium, Dissolved	mg/L	-0.00457	0.22	5.00	21.0	21.2	4.57	4.25 to 5.75		92.0	70 to 130	0.948	20
AW19581	Molybdenum, Dissolved	mg/L	0.0000162	0.0044	0.10	0.245	0.245				93.0	70 to 130	0.0057420	
AW19581	Antimony, Dissolved	mg/L	0.0000900	0.00132	0.10	0.0922	0.0923				92.2	70 to 130	0.159	20
AW19581	Cadmium, Dissolved	mg/L	0.00000131	0.00044	0.10	0.0993	0.101				99.3	70 to 130	1.87	20
AW19581	Thallium, Dissolved	mg/L	0.000000163	0.00044	0.10	0.0986	0.0975				98.6	70 to 130	1.04	20
AW19581	Arsenic, Dissolved	mg/L	0.0000113	0.0022	0.10	0.250	0.249				95.0	70 to 130	0.425	20
AW19581	Cobalt, Dissolved	mg/L	0.00000310	0.0044	0.10	0.103	0.103				103	70 to 130	0.244	20
AW19581	Beryllium, Dissolved	mg/L	0.00000388	0.00132	0.10	0.0985	0.0966				98.5	70 to 130	1.91	20
AW19581	Mercury, Dissolved by CVAA	mg/L	0.000115	0.0005	0.004	0.00393	0.00399	0.00392	0.0034 to 0.0046		98.2	70 to 130	1.51	20
AW19581	Barium, Dissolved	mg/L	-0.00000110	0.0044	0.10	0.141	0.142				95.1	70 to 130	0.690	20
AW19581	Chromium, Dissolved	mg/L	-0.000000548	0.0044	0.10	0.100	0.0993				100	70 to 130	0.768	20
AW19581	Selenium, Dissolved	mg/L	0.0000328	0.0044	0.10	0.0982	0.0964				94.8	70 to 130	1.81	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY: Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-11 Diss

Laboratory ID Number: AW19573

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19581	Sulfate, Dissolved	mg/L	0.298	1.0	200	349		149	19.2	18 to 22	99.5	80 to 120	0.669	20
AW19581	Chloride, Dissolved	mg/L	0.000	0.25	10.00	13.6		3.63	9.93	9 to 11	99.6	80 to 120	0.193	20
AW19581	Fluoride, Dissolved	mg/L	0.000	0.3	2.00	2.01		0.095	1.95	1.8 to 2.2	95.8	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY: Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW19574

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	J 0.403	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW19574

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046	95.5	70 to 130	2.13	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW19574

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19580	Solids, Dissolved	mg/L	1.0	25			370	53.0	40 to 60			1.65	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW19575

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	J 0.00138	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0696	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	J 0.0712	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	4.52	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0479	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00738	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		50	408	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	6.47	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	J 0.214	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	9.56	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW19575

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046	95.5	70 to 130	2.13	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW19575

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19580	Solids, Dissolved	mg/L	1.0	25			370	53.0	40 to 60			1.65	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW19576

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.492	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	J 0.0279	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	39.6	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	J 0.0252	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00752	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		25	245	mg/L
* Chloride, Total	SES	8/10/2016	EPA 300.0		1	0.04	0.25	6.67	mg/L
* Fluoride, Total	SES	8/10/2016	EPA 300.0		1	0.01	0.3	0.385	mg/L
* Sulfate, Total	SES	8/10/2016	EPA 300.0		1	0.3	1	9.02	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW19576

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19576 Calcium, Total	mg/L	-0.00409	0.22	5.00	44.5	43.4	4.82	4.25 to 5.75	98.0	70 to 130	2.50	20	
AW19576 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.104	0.105	0.103	0.085 to 0.115	104	70 to 130	0.679	20	
AW19576 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0989	0.100	0.101	0.085 to 0.115	98.9	70 to 130	1.14	20	
AW19576 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.851	20	
AW19576 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.105	0.108	0.0985	0.085 to 0.115	97.5	70 to 130	2.84	20	
AW19576 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.105	0.107	0.109	0.085 to 0.115	105	70 to 130	1.86	20	
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046	95.5	70 to 130	2.13	20	
AW19576 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.103	0.104	0.103	0.085 to 0.115	103	70 to 130	1.29	20	
AW19576 Boron, Total	mg/L	0.00186	0.044	1.00	0.984	1.02	0.941	0.85 to 1.15	95.6	70 to 130	3.59	20	
AW19576 Lithium, Total	mg/L	0.000231	0.022	0.20	0.236	0.216	0.207	0.17 to 0.23	105	70 to 130	8.85	20	
AW19576 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.586	0.593	0.101	0.085 to 0.115	94.0	70 to 130	1.19	20	
AW19576 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.100	0.103	0.110	0.085 to 0.115	100	70 to 130	2.54	20	
AW19576 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0935	0.0952	0.0934	0.085 to 0.115	93.5	70 to 130	1.87	20	
AW19576 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.107	0.109	0.105	0.085 to 0.115	107	70 to 130	1.76	20	
AW19576 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.14	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 01-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW19576

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW19576	Sulfate, Total	mg/L	0.00	1.0	20.00	29.5	9.01	19.5	18 to 22	102	80 to 120	0.111	20
AW19576	Fluoride, Total	mg/L	0.00	0.3	2.00	2.60	0.384	1.97	1.8 to 2.2	111	80 to 120	0.260	20
AW19576	Chloride, Total	mg/L	0.00	0.25	10.00	16.6	6.64	9.95	9 to 11	99.3	80 to 120	0.451	20
AW19580	Solids, Dissolved	mg/L	1.0	25			370	53.0	40 to 60			1.65	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW19577

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.0505	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.210	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	1.21	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		10	1.0	5.0	64.2	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	0.196	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0516	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		50	586	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	20.8	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.219	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		10	3.0	10	295	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW19577

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115	102	70 to 130	1.79	20	
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75	90.3	70 to 130	0.496	20	
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.28	20	
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.36	20	
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115	97.4	70 to 130	2.92	20	
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23	109	70 to 130	1.65	20	
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115	108	70 to 130	0.858	20	
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115	93.4	70 to 130	1.94	20	
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115	104	70 to 130	1.92	20	
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046	95.5	70 to 130	2.13	20	
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115	102	70 to 130	0.464	20	
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115	98.1	70 to 130	1.12	20	
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15	94.2	70 to 130	2.71	20	
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115	98.3	70 to 130	1.46	20	
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.99	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW19577

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19580	Solids, Dissolved	mg/L	1.0	25				370	53.0	40 to 60			1.65	5
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8		0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81		0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24		0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW19578

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	J 0.00270	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0535	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	0.176	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		1	0.1	0.5	5.29	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	0.145	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0365	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		50	348	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		2	0.08	0.50	28.1	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.282	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	9.14	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW19578

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115		102	70 to 130		1.79	20
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		1.99	20
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115		108	70 to 130		0.858	20
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115		93.4	70 to 130		1.94	20
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115		104	70 to 130		1.92	20
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115		106	70 to 130		1.28	20
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115		105	70 to 130		1.36	20
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115		97.4	70 to 130		2.92	20
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23		109	70 to 130		1.65	20
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046		95.5	70 to 130		2.13	20
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115		102	70 to 130		0.464	20
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115		98.1	70 to 130		1.12	20
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15		94.2	70 to 130		2.71	20
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115		98.3	70 to 130		1.46	20
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75		90.3	70 to 130		0.496	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW19578

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8	0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19580	Solids, Dissolved	mg/L	1.0	25			370	53.0	40 to 60			1.65	5
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81	0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24	0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW19579

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0895	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	0.178	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		1	0.1	0.5	2.25	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	J 0.0495	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		50	390	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	6.15	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	1.76	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	2.87	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW19579

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75	90.3	70 to 130	0.496	20	
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115	102	70 to 130	1.79	20	
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115	97.4	70 to 130	2.92	20	
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23	109	70 to 130	1.65	20	
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.28	20	
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.36	20	
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046	95.5	70 to 130	2.13	20	
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115	102	70 to 130	0.464	20	
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115	98.1	70 to 130	1.12	20	
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15	94.2	70 to 130	2.71	20	
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115	98.3	70 to 130	1.46	20	
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115	108	70 to 130	0.858	20	
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115	93.4	70 to 130	1.94	20	
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115	104	70 to 130	1.92	20	
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.99	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW19579

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8		0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19580	Solids, Dissolved	mg/L	1.0	25				370	53.0	40 to 60			1.65	5
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81		0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24		0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW19580

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.188	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0927	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	1.57	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		1	0.1	0.5	19.4	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	0.144	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.146	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	J 0.00279	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/8/2016	SM 2540C		1		50	358	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	3.70	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.098	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		10	3.0	10	154	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW19580

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115		102	70 to 130		1.79	20
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		1.99	20
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75		90.3	70 to 130		0.496	20
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115		97.4	70 to 130		2.92	20
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23		109	70 to 130		1.65	20
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115		108	70 to 130		0.858	20
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115		93.4	70 to 130		1.94	20
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115		104	70 to 130		1.92	20
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046		95.5	70 to 130		2.13	20
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115		102	70 to 130		0.464	20
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115		98.1	70 to 130		1.12	20
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15		94.2	70 to 130		2.71	20
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115		98.3	70 to 130		1.46	20
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115		106	70 to 130		1.28	20
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115		105	70 to 130		1.36	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW19580

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8	0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19580	Solids, Dissolved	mg/L	1.0	25			370	53.0	40 to 60			1.65	5
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81	0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24	0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AW19581

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.001	0.005	0.155	mg/L
* Barium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	0.0459	mg/L
* Beryllium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Boron, Dissolved	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	1.44	mg/L
* Calcium, Dissolved	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	16.4	mg/L
* Cadmium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Chromium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	0.140	mg/L
* Molybdenum, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	0.152	mg/L
* Lead, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Selenium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.002	0.01	J 0.00342	mg/L
* Thallium, Dissolved	TAS	8/18/2016	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Chloride, Dissolved	SES	8/19/2016	EPA 300.0		1	0.04	0.25	3.64	mg/L
Fluoride, Dissolved	SES	8/19/2016	EPA 300.0		1	0.01	0.3	J 0.095	mg/L
Sulfate, Dissolved	SES	8/19/2016	EPA 300.0		10	3.0	10	150	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY:Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AW19581

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AW19581	Boron, Dissolved	mg/L	0.00145	0.044	1.00	2.44	2.41	0.922	0.85 to 1.15		100	70 to 130		1.24	20
AW19581	Lead, Dissolved	mg/L	0.000000957	0.0022	0.10	0.100	0.0995				100	70 to 130		0.890	20
AW19581	Lithium, Dissolved	mg/L	0.000118	0.022	0.20	0.348	0.343	0.190	0.17 to 0.23		104	70 to 130		1.45	20
AW19581	Barium, Dissolved	mg/L	-0.00000110	0.0044	0.10	0.141	0.142				95.1	70 to 130		0.690	20
AW19581	Chromium, Dissolved	mg/L	-0.000000548	0.0044	0.10	0.100	0.0993				100	70 to 130		0.768	20
AW19581	Selenium, Dissolved	mg/L	0.0000328	0.0044	0.10	0.0982	0.0964				94.8	70 to 130		1.81	20
AW19581	Beryllium, Dissolved	mg/L	0.00000388	0.00132	0.10	0.0985	0.0966				98.5	70 to 130		1.91	20
AW19581	Mercury, Dissolved by CVAA	mg/L	0.000115	0.0005	0.004	0.00393	0.00399	0.00392	0.0034 to 0.0046		98.2	70 to 130		1.51	20
AW19581	Calcium, Dissolved	mg/L	-0.00457	0.22	5.00	21.0	21.2	4.57	4.25 to 5.75		92.0	70 to 130		0.948	20
AW19581	Molybdenum, Dissolved	mg/L	0.0000162	0.0044	0.10	0.245	0.245				93.0	70 to 130		0.0057420	
AW19581	Antimony, Dissolved	mg/L	0.0000900	0.00132	0.10	0.0922	0.0923				92.2	70 to 130		0.159	20
AW19581	Cadmium, Dissolved	mg/L	0.00000131	0.00044	0.10	0.0993	0.101				99.3	70 to 130		1.87	20
AW19581	Thallium, Dissolved	mg/L	0.000000163	0.00044	0.10	0.0986	0.0975				98.6	70 to 130		1.04	20
AW19581	Arsenic, Dissolved	mg/L	0.0000113	0.0022	0.10	0.250	0.249				95.0	70 to 130		0.425	20
AW19581	Cobalt, Dissolved	mg/L	0.00000310	0.0044	0.10	0.103	0.103				103	70 to 130		0.244	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY: Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 02-Aug-16
 Customer ID:
 Delivery Date: 03-Aug-16

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AW19581

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW19581	Sulfate, Dissolved	mg/L	0.298	1.0	200	349	149	19.2	18 to 22	99.5	80 to 120	0.669	20
AW19581	Fluoride, Dissolved	mg/L	0.000	0.3	2.00	2.01	0.095	1.95	1.8 to 2.2	95.8	80 to 120	0.00	20
AW19581	Chloride, Dissolved	mg/L	0.000	0.25	10.00	13.6	3.63	9.93	9 to 11	99.6	80 to 120	0.193	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY: Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW19672

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.00781	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0290	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	0.264	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		10	1.0	5.0	80.8	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	0.101	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00571	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		50	514	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	2.18	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.123	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		10	3.0	10	218	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW19672

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115		102	70 to 130		1.79	20
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		1.99	20
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75		90.3	70 to 130		0.496	20
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115		97.4	70 to 130		2.92	20
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23		109	70 to 130		1.65	20
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115		108	70 to 130		0.858	20
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115		93.4	70 to 130		1.94	20
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115		104	70 to 130		1.92	20
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115		106	70 to 130		1.28	20
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115		105	70 to 130		1.36	20
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046		95.5	70 to 130		2.13	20
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115		102	70 to 130		0.464	20
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115		98.1	70 to 130		1.12	20
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15		94.2	70 to 130		2.71	20
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115		98.3	70 to 130		1.46	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW19672

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Solids, Dissolved	mg/L	0	25				4.7	52.0	40 to 60			0	5
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8		0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81		0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24		0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW19673

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.0547	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.852	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	1.04	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		10	1.0	5.0	48.1	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	0.204	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00372	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		25	302	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	5.20	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.127	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	52.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW19673

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115		102	70 to 130		1.79	20
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		1.99	20
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115		106	70 to 130		1.28	20
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115		105	70 to 130		1.36	20
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115		97.4	70 to 130		2.92	20
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23		109	70 to 130		1.65	20
AW19580 Mercury, Total by CVAA	mg/L	0.0000820	0.0005	0.004	0.00382	0.00390	0.00392	0.0034 to 0.0046		95.5	70 to 130		2.13	20
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115		102	70 to 130		0.464	20
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115		98.1	70 to 130		1.12	20
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15		94.2	70 to 130		2.71	20
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115		98.3	70 to 130		1.46	20
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115		108	70 to 130		0.858	20
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115		93.4	70 to 130		1.94	20
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115		104	70 to 130		1.92	20
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75		90.3	70 to 130		0.496	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW19673

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Solids, Dissolved	mg/L	0	25				4.7	52.0	40 to 60			0	5
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8		0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81		0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24		0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW19674

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.0103	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.270	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	1.16	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		10	1.0	5.0	42.5	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		50	394	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	21.9	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.099	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		10	3.0	10	203	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW19674

Sample Analysis	Units	MB	MB				LFB			Rec		Prec
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.99	20
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115	102	70 to 130	1.79	20
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75	90.3	70 to 130	0.496	20
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115	108	70 to 130	0.858	20
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115	93.4	70 to 130	1.94	20
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115	104	70 to 130	1.92	20
AW20228 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00402	0.00398	0.00393	0.0034 to 0.0046	100	70 to 130	0.967	20
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.28	20
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.36	20
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115	97.4	70 to 130	2.92	20
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23	109	70 to 130	1.65	20
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115	102	70 to 130	0.464	20
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115	98.1	70 to 130	1.12	20
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15	94.2	70 to 130	2.71	20
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115	98.3	70 to 130	1.46	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW19674

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8	0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Solids, Dissolved	mg/L	0	25			4.7	52.0	40 to 60			0	5
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81	0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24	0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW19675

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	0.110	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.144	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	0.340	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		1	0.1	0.5	36.1	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	J 0.0265	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0269	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		50	546	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	14.5	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	0.656	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	19.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW19675

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115	102	70 to 130	1.79	20	
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75	90.3	70 to 130	0.496	20	
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.99	20	
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.28	20	
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.36	20	
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115	97.4	70 to 130	2.92	20	
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23	109	70 to 130	1.65	20	
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115	102	70 to 130	0.464	20	
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115	98.1	70 to 130	1.12	20	
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15	94.2	70 to 130	2.71	20	
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115	98.3	70 to 130	1.46	20	
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115	108	70 to 130	0.858	20	
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115	93.4	70 to 130	1.94	20	
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115	104	70 to 130	1.92	20	
AW20228 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00402	0.00398	0.00393	0.0034 to 0.0046	100	70 to 130	0.967	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW19675

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8	0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Solids, Dissolved	mg/L	0	25			4.7	52.0	40 to 60			0	5
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81	0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24	0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW19676

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		1	0.1	0.5	J 0.244	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	J 0.40	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Precision for Total Dissolved Solids is out of range. Results are less than 3 times the reporting limit, therefore will not be qualified. SGC 11/28/16
 CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW19676

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW19677 Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115		102	70 to 130		1.79	20
AW19677 Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		1.99	20
AW19677 Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75		90.3	70 to 130		0.496	20
AW19677 Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115		97.4	70 to 130		2.92	20
AW19677 Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23		109	70 to 130		1.65	20
AW19677 Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115		108	70 to 130		0.858	20
AW19677 Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115		93.4	70 to 130		1.94	20
AW19677 Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115		104	70 to 130		1.92	20
AW20228 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00402	0.00398	0.00393	0.0034 to 0.0046		100	70 to 130		0.967	20
AW19677 Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115		106	70 to 130		1.28	20
AW19677 Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115		105	70 to 130		1.36	20
AW19677 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115		102	70 to 130		0.464	20
AW19677 Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115		98.1	70 to 130		1.12	20
AW19677 Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15		94.2	70 to 130		2.71	20
AW19677 Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115		98.3	70 to 130		1.46	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Precision for Total Dissolved Solids is out of range.
 Results are less than 3 times the reporting limit,
 therefore will not be qualified. SGC 11/28/16
 CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as
 2.5 mg/L. The RL has now been corrected. The result for TDS
 has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW19676

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8	0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Solids, Dissolved	mg/L	0	25			4.7	52.0	40 to 60			0	5
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81	0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24	0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Precision for Total Dissolved Solids is out of range. Results are less than 3 times the reporting limit, therefore will not be qualified. SGC 11/28/16
 CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW19677

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	J 0.00214	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0274	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	2/2/2017	EPA 200.7		1	0.02	0.1	J 0.0239	mg/L
* Calcium, Total	HRG	2/2/2017	EPA 200.7		1	0.1	0.5	6.85	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00260	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/2/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		25	113	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	3.21	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.125	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	4.20	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW19677

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AW19677	Barium, Total	mg/L	0.0000196	0.0044	0.10	0.129	0.131	0.101	0.085 to 0.115	102	70 to 130	1.79	20
AW19677	Calcium, Total	mg/L	0.00215	0.22	5.00	11.4	11.3	5.33	4.25 to 5.75	90.3	70 to 130	0.496	20
AW19677	Thallium, Total	mg/L	0.00000120	0.00044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.99	20
AW19677	Chromium, Total	mg/L	0.00000370	0.0044	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	1.28	20
AW19677	Lead, Total	mg/L	0.0000120	0.0022	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.36	20
AW19677	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.104	0.103	0.085 to 0.115	102	70 to 130	0.464	20
AW19677	Beryllium, Total	mg/L	0.00000326	0.00132	0.10	0.0981	0.0992	0.110	0.085 to 0.115	98.1	70 to 130	1.12	20
AW19677	Boron, Total	mg/L	-0.00100	0.044	1.00	0.966	0.993	1.00	0.85 to 1.15	94.2	70 to 130	2.71	20
AW19677	Molybdenum, Total	mg/L	0.00000711	0.0044	0.10	0.0983	0.0998	0.0985	0.085 to 0.115	98.3	70 to 130	1.46	20
AW19677	Antimony, Total	mg/L	0.0000782	0.00132	0.10	0.0974	0.100	0.101	0.085 to 0.115	97.4	70 to 130	2.92	20
AW19677	Lithium, Total	mg/L	0.000694	0.022	0.20	0.217	0.214	0.206	0.17 to 0.23	109	70 to 130	1.65	20
AW19677	Cadmium, Total	mg/L	0.000000483	0.00044	0.10	0.108	0.108	0.104	0.085 to 0.115	108	70 to 130	0.858	20
AW19677	Cobalt, Total	mg/L	-0.00000845	0.0044	0.10	0.0960	0.0979	0.0934	0.085 to 0.115	93.4	70 to 130	1.94	20
AW19677	Selenium, Total	mg/L	0.0000510	0.0044	0.10	0.104	0.106	0.109	0.085 to 0.115	104	70 to 130	1.92	20
AW20228	Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00402	0.00398	0.00393	0.0034 to 0.0046	100	70 to 130	0.967	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW19677

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec			Prec Limit
							Duplicate	LFB		Rec	Limit	Prec	
AW19676	Solids, Dissolved	mg/L	0	25			4.7	52.0	40 to 60			0	5
AW19676	Sulfate, Total	mg/L	0.00	1.0	20.00	19.8	0.40	19.8	18 to 22	97.0	80 to 120	0.00	20
AW19676	Chloride, Total	mg/L	0.00	0.25	10.00	9.81	0.00	9.94	9 to 11	98.1	80 to 120	0	20
AW19676	Fluoride, Total	mg/L	0.00	0.3	2.00	2.24	0.00	2.03	1.8 to 2.2	112	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-8 Dup

Laboratory ID Number: AW19678

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/28/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	J 0.00221	mg/L
* Barium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	0.0330	mg/L
* Beryllium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	8/24/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.1	0.5	7.19	mg/L
* Cadmium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	J 0.00265	mg/L
* Chromium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/22/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	8/24/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	8/11/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	8/11/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/9/2016	SM 2540C		1		25	117	mg/L
* Chloride, Total	SES	8/11/2016	EPA 300.0		1	0.04	0.25	3.16	mg/L
* Fluoride, Total	SES	8/11/2016	EPA 300.0		1	0.01	0.3	J 0.130	mg/L
* Sulfate, Total	SES	8/11/2016	EPA 300.0		1	0.3	1	4.40	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-8 Dup

Laboratory ID Number: AW19678

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW19678 Thallium, Total	mg/L	0.00000472	0.00044	0.10	0.103	0.105	0.100	0.085 to 0.115	103	70 to 130	1.29	20
AW19678 Lead, Total	mg/L	0.0000221	0.0022	0.10	0.105	0.106	0.102	0.085 to 0.115	105	70 to 130	0.707	20
AW19678 Cadmium, Total	mg/L	0.00000244	0.00044	0.10	0.108	0.109	0.103	0.085 to 0.115	108	70 to 130	0.807	20
AW19678 Barium, Total	mg/L	0.0000355	0.0044	0.10	0.135	0.135	0.102	0.085 to 0.115	102	70 to 130	0.428	20
AW19678 Cobalt, Total	mg/L	-0.00000516	0.0044	0.10	0.0964	0.0975	0.0925	0.085 to 0.115	93.8	70 to 130	1.15	20
AW19678 Beryllium, Total	mg/L	0.00000187	0.00132	0.10	0.0967	0.0986	0.103	0.085 to 0.115	96.7	70 to 130	1.95	20
AW19678 Lithium, Total	mg/L	0.000285	0.022	0.20	0.196	0.195	0.208	0.17 to 0.23	98.0	70 to 130	0.512	20
AW19678 Antimony, Total	mg/L	0.000111	0.00132	0.10	0.0991	0.0989	0.101	0.085 to 0.115	99.1	70 to 130	0.135	20
AW20228 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00402	0.00398	0.00393	0.0034 to 0.0046	100	70 to 130	0.967	20
AW19678 Chromium, Total	mg/L	0.00000940	0.0044	0.10	0.106	0.108	0.105	0.085 to 0.115	106	70 to 130	1.12	20
AW19678 Molybdenum, Total	mg/L	0.0000139	0.0044	0.10	0.0979	0.0993	0.0995	0.085 to 0.115	97.9	70 to 130	1.35	20
AW19678 Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.104	0.105	0.104	0.085 to 0.115	102	70 to 130	1.28	20
AW19678 Boron, Total	mg/L	0.00664	0.044	1.00	0.977	0.942	0.938	0.85 to 1.15	97.7	70 to 130	3.65	20
AW19678 Calcium, Total	mg/L	-0.00376	0.22	5.00	11.8	11.3	4.93	4.25 to 5.75	92.2	70 to 130	4.33	20
AW19678 Selenium, Total	mg/L	0.0000537	0.0044	0.10	0.104	0.106	0.108	0.085 to 0.115	104	70 to 130	1.28	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 03-Aug-16
 Customer ID:
 Delivery Date: 04-Aug-16

Description: Gorgas Ash Pond - MW-8 Dup

Laboratory ID Number: AW19678

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW19676	Solids, Dissolved	mg/L	0	25			4.7	52.0	40 to 60			0	5
AW19678	Fluoride, Total	mg/L	0.000	0.3	2.00	2.10	0.129	1.99	1.8 to 2.2	98.5	80 to 120	0.772	20
AW19678	Chloride, Total	mg/L	0.000	0.25	10.00	13.1	3.16	9.93	9 to 11	99.4	80 to 120	0.00	20
AW19678	Sulfate, Total	mg/L	0.415	1.0	20.00	24.0	4.33	19.7	18 to 22	98.0	80 to 120	1.60	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

 Field Complete

 Lab Complete

 Lab ETA 08/03/2016 08:00

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Bruce Williams	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond

Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle
Comments	Lab filter set for MW-11 3.0mL HNO ₃ added to bottle 1; 2.0mL HNO ₃ added to bottle 2 (AW19573) 8/4/16 SGC

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	08/01/2016	13:50	3	Groundwater		AW19566
MW-16D	08/01/2016	15:55	3	Groundwater		AW19567
FB-1	08/01/2016	16:18	3	Field Blank		AW19568
MW-14	08/02/2016	10:10	3	Groundwater		AW19569
MW-13	08/02/2016	11:50	3	Groundwater		AW19570
MW-13 Dup	08/02/2016	11:50	3	Sample Duplicate		AW19571
MW-11	08/02/2016	15:58	3	Groundwater		AW19572
MW-11 Dis	08/02/2016	16:17	3	Groundwater	✓	AW19573
EB-1	08/02/2016	18:05	3	Equipment Blank		AW19574

Relinquished By	Received By	Date/Time
		08/02/2016 18:22
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2016.08.04 10:05:46 -0500</small>	08/03/2016 10:53

SmarTroll ID	4696-23444-3-3
Turbidity ID	4677-23342-4-1

All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Cooler Temp	1.5 degrees C
Thermometer ID	4303-21829-1-1
pH Strip ID	4831-24391-20-18



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 08/04/2016 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Bruce Williams	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond

Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments	MW-12 (bottle 3) very foamy at the top. SGC 8/4/16		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	08/03/2016	10:00	4	Groundwater		AW19672
MW-6D	08/03/2016	11:42	3	Groundwater		AW19673
MW-6S	08/03/2016	12:00	3	Groundwater		AW19674
MW-12	08/03/2016	14:30	3	Groundwater		AW19675
FB-2	08/03/2016	14:55	3	Field Blank		AW19676
MW-8	08/03/2016	16:30	3	Groundwater		AW19677
MW-8 Dup	08/03/2016	16:30	3	Sample Duplicate		AW19678

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southerncco.com, c=US Date: 2016.08.04 10:59:26 -05'00'</small>	08/04/2016 10:11

SmarTroll ID	4696-23444-3-3
Turbidity ID	4677-23342-4-1

All metals and radiological bottles have pH < 2

Cooler Temp	1.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	4831-24391-20-18

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: 400-126078-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (1)

Client Project/Site: CCR Plant Gorgas

For:

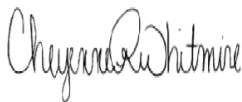
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

9/22/2016 4:45:42 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	29
Chronicle	30
QC Association	36
QC Sample Results	38
Chain of Custody	42
Receipt Checklists	45
Certification Summary	46

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (1)

Job ID: 400-126078-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-126078-1

RAD

Method(s) 9315: Radium-226 Prep Batch 160-266813: The following samples have an RER (replicate error ratio) result outside of the acceptance criteria of 1 (1.48) for radium-226. Duplicate precision is demonstrated by acceptable relative percent difference (RPD), within the limit of 40% (30%). The data have been qualified and reported. AW19676 FB-2 (400-126078-21), AW19677 MW-8 (400-126078-22), AW19678 MW-8 DUP (400-126078-23), (LCS 160-266813/2-A), (LCSD 160-266813/3-A) and (MB 160-266813/1-A)

Method(s) PrecSep_0: Radium-228 Prep Batch 160-266825. Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AW19676 FB-2 (400-126078-21), AW19677 MW-8 (400-126078-22) and AW19678 MW-8 DUP (400-126078-23). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Lot 400-126078 was run at a reduced aliquot due to limited sample available.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-267141: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AW19566 MW-15 (400-126078-1), AW19567 MW-16D (400-126078-2), AW19568 FB-1 (400-126078-3), AW19569 MW-14 (400-126078-4), AW19570 MW-13 (400-126078-5), AW19571 MW-13 DUP (400-126078-6), AW19572 MW-11 (400-126078-7), AW19573 MW-11 DISS (400-126078-8), AW19574 EB-1 (400-126078-9), AW19575 MW-17 (400-126078-10), AW19576 MW-19 (400-126078-11), AW19577 MW-18 (400-126078-12), AW19578 MW-21 (400-126078-13), AW19579 MW-2 (400-126078-14), AW19580 MW-7 (400-126078-15), AW19581 MW-7 DISS (400-126078-16), AW19672 MW-9 (400-126078-17), AW19672 MW-9 (400-126078-17[DU]), AW19673 MW-6D (400-126078-18), AW19674 MW-6S (400-126078-19) and AW19675 MW-12 (400-126078-20) due to limited volume.

Method(s) PrecSep-21: Radium 226 Prep Batch: 160-266813: The following samples were prepared at a reduced aliquot due to limited volume. AW19676 FB-2 (400-126078-21), AW19677 MW-8 (400-126078-22) and AW19678 MW-8 DUP (400-126078-23)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-266813. Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AW19676 FB-2 (400-126078-21), AW19677 MW-8 (400-126078-22) and AW19678 MW-8 DUP (400-126078-23). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision. Lot 400-126078 was run at a reduced aliquot due to limited sample available.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-266812: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AW19566 MW-15 (400-126078-1), AW19567 MW-16D (400-126078-2), AW19568 FB-1 (400-126078-3), AW19569 MW-14 (400-126078-4), AW19570 MW-13 (400-126078-5), AW19571 MW-13 DUP (400-126078-6), AW19572 MW-11 (400-126078-7), AW19573 MW-11 DISS (400-126078-8), AW19574 EB-1 (400-126078-9), AW19575 MW-17 (400-126078-10), AW19576 MW-19 (400-126078-11), AW19577 MW-18 (400-126078-12), AW19578 MW-21 (400-126078-13), AW19579 MW-2 (400-126078-14), AW19580 MW-7 (400-126078-15), AW19581 MW-7 DISS (400-126078-16), AW19672 MW-9 (400-126078-17), AW19672 MW-9 (400-126078-17[DU]), AW19673 MW-6D (400-126078-18), AW19674 MW-6S (400-126078-19) and AW19675 MW-12 (400-126078-20) due to limited volume.

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (1)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126078-1	AW19566 MW-15	Water	08/01/16 13:50	08/19/16 15:30
400-126078-2	AW19567 MW-16D	Water	08/01/16 15:55	08/19/16 15:30
400-126078-3	AW19568 FB-1	Water	08/01/16 16:18	08/19/16 15:30
400-126078-4	AW19569 MW-14	Water	08/02/16 10:10	08/19/16 15:30
400-126078-5	AW19570 MW-13	Water	08/02/16 11:50	08/19/16 15:30
400-126078-6	AW19571 MW-13 DUP	Water	08/02/16 11:50	08/19/16 15:30
400-126078-7	AW19572 MW-11	Water	08/02/16 15:58	08/19/16 15:30
400-126078-8	AW19573 MW-11 DISS	Water	08/02/16 16:17	08/19/16 15:30
400-126078-9	AW19574 EB-1	Water	08/02/16 18:05	08/19/16 15:30
400-126078-10	AW19575 MW-17	Water	08/01/16 13:23	08/19/16 15:30
400-126078-11	AW19576 MW-19	Water	08/01/16 16:00	08/19/16 15:30
400-126078-12	AW19577 MW-18	Water	08/02/16 09:05	08/19/16 15:30
400-126078-13	AW19578 MW-21	Water	08/02/16 11:53	08/19/16 15:30
400-126078-14	AW19579 MW-2	Water	08/02/16 13:30	08/19/16 15:30
400-126078-15	AW19580 MW-7	Water	08/02/16 17:20	08/19/16 15:30
400-126078-16	AW19581 MW-7 DISS	Water	08/02/16 17:20	08/19/16 15:30
400-126078-17	AW19672 MW-9	Water	08/03/16 10:00	08/19/16 15:30
400-126078-18	AW19673 MW-6D	Water	08/03/16 11:42	08/19/16 15:30
400-126078-19	AW19674 MW-6S	Water	08/03/16 12:00	08/19/16 15:30
400-126078-20	AW19675 MW-12	Water	08/03/16 14:30	08/19/16 15:30
400-126078-21	AW19676 FB-2	Water	08/03/16 14:55	08/19/16 15:30
400-126078-22	AW19677 MW-8	Water	08/03/16 16:30	08/19/16 15:30
400-126078-23	AW19678 MW-8 DUP	Water	08/03/16 16:30	08/19/16 15:30

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19566 MW-15

Lab Sample ID: 400-126078-1

Date Collected: 08/01/16 13:50

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.413		0.124	0.130	1.00	0.131	pCi/L	08/26/16 15:59	09/20/16 08:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/26/16 15:59	09/20/16 08:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.269	U	0.308	0.309	1.00	0.506	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	87.1		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.682		0.332	0.335	5.00	0.506	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19567 MW-16D

Lab Sample ID: 400-126078-2

Date Collected: 08/01/16 15:55

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.134		0.0826	0.0835	1.00	0.114	pCi/L	08/26/16 15:59	09/20/16 08:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					08/26/16 15:59	09/20/16 08:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.229	U	0.302	0.303	1.00	0.503	pCi/L	08/29/16 16:59	09/13/16 18:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					08/29/16 16:59	09/13/16 18:54	1
Y Carrier	91.6		40 - 110					08/29/16 16:59	09/13/16 18:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.363	U	0.313	0.314	5.00	0.503	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19568 FB-1

Lab Sample ID: 400-126078-3

Date Collected: 08/01/16 16:18

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0614	U	0.0648	0.0651	1.00	0.104	pCi/L	08/26/16 15:59	09/20/16 08:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					08/26/16 15:59	09/20/16 08:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.267	U	0.328	0.329	1.00	0.542	pCi/L	08/29/16 16:59	09/13/16 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					08/29/16 16:59	09/13/16 18:55	1
Y Carrier	82.2		40 - 110					08/29/16 16:59	09/13/16 18:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.329	U	0.334	0.335	5.00	0.542	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19569 MW-14

Lab Sample ID: 400-126078-4

Date Collected: 08/02/16 10:10

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.181		0.0913	0.0928	1.00	0.119	pCi/L	08/26/16 15:59	09/20/16 08:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/26/16 15:59	09/20/16 08:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.476	U	0.364	0.367	1.00	0.573	pCi/L	08/29/16 16:59	09/13/16 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					08/29/16 16:59	09/13/16 18:56	1
Y Carrier	80.7		40 - 110					08/29/16 16:59	09/13/16 18:56	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	0.657		0.375	0.378	5.00	0.573	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19570 MW-13

Lab Sample ID: 400-126078-5

Date Collected: 08/02/16 11:50

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111		0.0743	0.0750	1.00	0.104	pCi/L	08/26/16 15:59	09/20/16 08:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					08/26/16 15:59	09/20/16 08:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0936	U	0.314	0.314	1.00	0.576	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	89.3		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0177	U	0.323	0.323	5.00	0.576	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19571 MW-13 DUP

Lab Sample ID: 400-126078-6

Date Collected: 08/02/16 11:50

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.330		0.125	0.128	1.00	0.156	pCi/L	08/26/16 15:59	09/20/16 08:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/26/16 15:59	09/20/16 08:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.131	U	0.275	0.275	1.00	0.472	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	104		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.460	U	0.302	0.304	5.00	0.472	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19572 MW-11

Lab Sample ID: 400-126078-7

Date Collected: 08/02/16 15:58

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.238		0.109	0.111	1.00	0.144	pCi/L	08/26/16 15:59	09/20/16 08:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					08/26/16 15:59	09/20/16 08:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.133	U	0.298	0.298	1.00	0.561	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	83.0		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.105	U	0.317	0.318	5.00	0.561	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19573 MW-11 DISS

Lab Sample ID: 400-126078-8

Date Collected: 08/02/16 16:17

Matrix: Water

Date Received: 08/19/16 15:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.274		0.111	0.114	1.00	0.137	pCi/L	08/26/16 15:59	09/20/16 08:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/26/16 15:59	09/20/16 08:19	1

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.303	U	0.379	0.380	1.00	0.627	pCi/L	08/29/16 16:59	09/13/16 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					08/29/16 16:59	09/13/16 18:58	1
Y Carrier	79.6		40 - 110					08/29/16 16:59	09/13/16 18:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.577	U	0.395	0.397	5.00	0.627	pCi/L		09/22/16 11:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19574 EB-1

Lab Sample ID: 400-126078-9

Date Collected: 08/02/16 18:05

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104	U	0.0750	0.0756	1.00	0.108	pCi/L	08/26/16 15:59	09/20/16 08:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/26/16 15:59	09/20/16 08:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.123	U	0.327	0.327	1.00	0.608	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	84.9		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0187	U	0.336	0.336	5.00	0.608	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19575 MW-17

Lab Sample ID: 400-126078-10

Date Collected: 08/01/16 13:23

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100		0.0682	0.0688	1.00	0.0941	pCi/L	08/26/16 15:59	09/20/16 08:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					08/26/16 15:59	09/20/16 08:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.408	U	0.364	0.366	1.00	0.584	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	80.4		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.508	U	0.371	0.373	5.00	0.584	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19576 MW-19

Lab Sample ID: 400-126078-11

Date Collected: 08/01/16 16:00

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.393		0.123	0.128	1.00	0.136	pCi/L	08/26/16 15:59	09/20/16 08:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/26/16 15:59	09/20/16 08:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.304	U	0.451	0.452	1.00	0.758	pCi/L	08/29/16 16:59	09/13/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					08/29/16 16:59	09/13/16 18:53	1
Y Carrier	62.1		40 - 110					08/29/16 16:59	09/13/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.697	U	0.468	0.470	5.00	0.758	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19577 MW-18

Lab Sample ID: 400-126078-12

Date Collected: 08/02/16 09:05

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.264		0.0990	0.102	1.00	0.104	pCi/L	08/26/16 15:59	09/20/16 08:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110					08/26/16 15:59	09/20/16 08:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.401	U	0.399	0.400	1.00	0.647	pCi/L	08/29/16 16:59	09/13/16 19:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110					08/29/16 16:59	09/13/16 19:05	1
Y Carrier	87.5		40 - 110					08/29/16 16:59	09/13/16 19:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.665		0.411	0.413	5.00	0.647	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19578 MW-21

Lab Sample ID: 400-126078-13

Date Collected: 08/02/16 11:53

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.308		0.0983	0.102	1.00	0.0906	pCi/L	08/26/16 15:59	09/20/16 08:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					08/26/16 15:59	09/20/16 08:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.357	U	0.327	0.329	1.00	0.525	pCi/L	08/29/16 16:59	09/13/16 19:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					08/29/16 16:59	09/13/16 19:05	1
Y Carrier	89.0		40 - 110					08/29/16 16:59	09/13/16 19:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.665		0.341	0.344	5.00	0.525	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19579 MW-2

Lab Sample ID: 400-126078-14

Date Collected: 08/02/16 13:30

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0940	U	0.0699	0.0705	1.00	0.101	pCi/L	08/26/16 15:59	09/20/16 08:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					08/26/16 15:59	09/20/16 08:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.180	U	0.363	0.363	1.00	0.618	pCi/L	08/29/16 16:59	09/13/16 19:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					08/29/16 16:59	09/13/16 19:05	1
Y Carrier	86.7		40 - 110					08/29/16 16:59	09/13/16 19:05	1

Method: Ra226_Ra228 - Combined Radium-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	0.618	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19580 MW-7

Lab Sample ID: 400-126078-15

Date Collected: 08/02/16 17:20

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.377		0.139	0.143	1.00	0.172	pCi/L	08/26/16 15:59	09/20/16 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.6		40 - 110					08/26/16 15:59	09/20/16 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.493	U	0.390	0.393	1.00	0.615	pCi/L	08/29/16 16:59	09/13/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.6		40 - 110					08/29/16 16:59	09/13/16 18:57	1
Y Carrier	89.0		40 - 110					08/29/16 16:59	09/13/16 18:57	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	0.870		0.414	0.418	5.00	0.615	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19581 MW-7 DISS

Lab Sample ID: 400-126078-16

Date Collected: 08/02/16 17:20

Matrix: Water

Date Received: 08/19/16 15:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0824	U	0.0677	0.0682	1.00	0.100	pCi/L	08/26/16 15:59	09/20/16 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					08/26/16 15:59	09/20/16 08:29	1

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.360	0.362	1.00	0.576	pCi/L	08/29/16 16:59	09/13/16 19:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110					08/29/16 16:59	09/13/16 19:01	1
Y Carrier	91.6		40 - 110					08/29/16 16:59	09/13/16 19:01	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.4954	U	0.366	0.368	5.00	0.576	pCi/L		09/22/16 11:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19672 MW-9

Lab Sample ID: 400-126078-17

Date Collected: 08/03/16 10:00

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.248		0.115	0.117	1.00	0.152	pCi/L	08/26/16 15:59	09/20/16 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					08/26/16 15:59	09/20/16 08:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00728	U	0.389	0.389	1.00	0.696	pCi/L	08/29/16 16:59	09/13/16 19:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					08/29/16 16:59	09/13/16 19:02	1
Y Carrier	89.7		40 - 110					08/29/16 16:59	09/13/16 19:02	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	0.241	U	0.406	0.406	5.00	0.696	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19673 MW-6D

Lab Sample ID: 400-126078-18

Date Collected: 08/03/16 11:42

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.233		0.0909	0.0933	1.00	0.100	pCi/L	08/26/16 15:59	09/20/16 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/26/16 15:59	09/20/16 08:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.187	U	0.318	0.319	1.00	0.539	pCi/L	08/29/16 16:59	09/13/16 19:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/29/16 16:59	09/13/16 19:02	1
Y Carrier	88.2		40 - 110					08/29/16 16:59	09/13/16 19:02	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	0.420	U	0.331	0.332	5.00	0.539	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19674 MW-6S

Lab Sample ID: 400-126078-19

Date Collected: 08/03/16 12:00

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.425		0.123	0.129	1.00	0.131	pCi/L	08/26/16 15:59	09/20/16 08:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					08/26/16 15:59	09/20/16 08:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.955		0.467	0.475	1.00	0.690	pCi/L	08/29/16 16:59	09/13/16 19:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					08/29/16 16:59	09/13/16 19:02	1
Y Carrier	84.5		40 - 110					08/29/16 16:59	09/13/16 19:02	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	1.38		0.482	0.492	5.00	0.690	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19675 MW-12

Lab Sample ID: 400-126078-20

Date Collected: 08/03/16 14:30

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.530		0.178	0.184	1.00	0.206	pCi/L	08/26/16 15:59	09/20/16 08:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					08/26/16 15:59	09/20/16 08:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.548	U	0.589	0.592	1.00	0.965	pCi/L	08/29/16 16:59	09/13/16 19:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					08/29/16 16:59	09/13/16 19:02	1
Y Carrier	91.2		40 - 110					08/29/16 16:59	09/13/16 19:02	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	1.08		0.616	0.619	5.00	0.965	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19676 FB-2

Lab Sample ID: 400-126078-21

Date Collected: 08/03/16 14:55

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0672	U *	0.0829	0.0831	1.00	0.137	pCi/L	08/26/16 16:00	09/19/16 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					08/26/16 16:00	09/19/16 09:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.181	U	0.268	0.269	1.00	0.450	pCi/L	08/26/16 22:38	09/13/16 12:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					08/26/16 22:38	09/13/16 12:48	1
Y Carrier	93.8		40 - 110					08/26/16 22:38	09/13/16 12:48	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	0.248	U	0.281	0.281	5.00	0.450	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19677 MW-8

Lab Sample ID: 400-126078-22

Date Collected: 08/03/16 16:30

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.156	*	0.0785	0.0798	1.00	0.0962	pCi/L	08/26/16 16:00	09/19/16 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					08/26/16 16:00	09/19/16 09:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.143	U	0.287	0.288	1.00	0.490	pCi/L	08/26/16 22:38	09/13/16 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					08/26/16 22:38	09/13/16 12:52	1
Y Carrier	93.8		40 - 110					08/26/16 22:38	09/13/16 12:52	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	0.299	U	0.298	0.298	5.00	0.490	pCi/L		09/21/16 18:23	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19678 MW-8 DUP

Lab Sample ID: 400-126078-23

Date Collected: 08/03/16 16:30

Matrix: Water

Date Received: 08/19/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.160	*	0.0759	0.0772	1.00	0.0886	pCi/L	08/26/16 16:00	09/19/16 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					08/26/16 16:00	09/19/16 09:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0524	U	0.284	0.284	1.00	0.514	pCi/L	08/26/16 22:38	09/13/16 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					08/26/16 22:38	09/13/16 12:52	1
Y Carrier	90.5		40 - 110					08/26/16 22:38	09/13/16 12:52	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	0.108	U	0.294	0.294	5.00	0.514	pCi/L		09/21/16 18:23	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (1)

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
*	RPD of the LCS and LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19566 MW-15

Lab Sample ID: 400-126078-1

Date Collected: 08/01/16 13:50

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:18	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19567 MW-16D

Lab Sample ID: 400-126078-2

Date Collected: 08/01/16 15:55

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:18	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19568 FB-1

Lab Sample ID: 400-126078-3

Date Collected: 08/01/16 16:18

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:18	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19569 MW-14

Lab Sample ID: 400-126078-4

Date Collected: 08/02/16 10:10

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:56	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19570 MW-13

Lab Sample ID: 400-126078-5

Date Collected: 08/02/16 11:50

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19571 MW-13 DUP

Lab Sample ID: 400-126078-6

Date Collected: 08/02/16 11:50

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19572 MW-11

Lab Sample ID: 400-126078-7

Date Collected: 08/02/16 15:58

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270709	09/20/16 08:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19573 MW-11 DISS

Lab Sample ID: 400-126078-8

Date Collected: 08/02/16 16:17

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Dissolved	Analysis	9315		1	270709	09/20/16 08:19	RTM	TAL SL
Dissolved	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Dissolved	Analysis	9320		1	269321	09/13/16 18:58	RTM	TAL SL
Dissolved	Analysis	Ra226_Ra228		1	271150	09/22/16 11:05	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19574 EB-1

Lab Sample ID: 400-126078-9

Date Collected: 08/02/16 18:05

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19575 MW-17

Lab Sample ID: 400-126078-10

Date Collected: 08/01/16 13:23

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19576 MW-19

Lab Sample ID: 400-126078-11

Date Collected: 08/01/16 16:00

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19577 MW-18

Lab Sample ID: 400-126078-12

Date Collected: 08/02/16 09:05

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 19:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19578 MW-21

Lab Sample ID: 400-126078-13

Date Collected: 08/02/16 11:53

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 19:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19579 MW-2

Lab Sample ID: 400-126078-14

Date Collected: 08/02/16 13:30

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 19:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19580 MW-7

Lab Sample ID: 400-126078-15

Date Collected: 08/02/16 17:20

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:29	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 18:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19581 MW-7 DISS

Lab Sample ID: 400-126078-16

Date Collected: 08/02/16 17:20

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Dissolved	Analysis	9315		1	270700	09/20/16 08:29	RTM	TAL SL
Dissolved	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Dissolved	Analysis	9320		1	269330	09/13/16 19:01	RTM	TAL SL
Dissolved	Analysis	Ra226_Ra228		1	271150	09/22/16 11:05	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19672 MW-9

Lab Sample ID: 400-126078-17

Date Collected: 08/03/16 10:00

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269330	09/13/16 19:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19673 MW-6D

Lab Sample ID: 400-126078-18

Date Collected: 08/03/16 11:42

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270700	09/20/16 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269330	09/13/16 19:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19674 MW-6S

Lab Sample ID: 400-126078-19

Date Collected: 08/03/16 12:00

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270711	09/20/16 08:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269330	09/13/16 19:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19675 MW-12

Lab Sample ID: 400-126078-20

Date Collected: 08/03/16 14:30

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266812	08/26/16 15:59	MCJ	TAL SL
Total/NA	Analysis	9315		1	270711	09/20/16 08:34	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267141	08/29/16 16:59	MCJ	TAL SL
Total/NA	Analysis	9320		1	269330	09/13/16 19:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (1)

Client Sample ID: AW19676 FB-2

Lab Sample ID: 400-126078-21

Date Collected: 08/03/16 14:55

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266813	08/26/16 16:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	270530	09/19/16 09:40	ALS	TAL SL
Total/NA	Prep	PrecSep_0			266825	08/26/16 22:38	MCJ	TAL SL
Total/NA	Analysis	9320		1	269321	09/13/16 12:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19677 MW-8

Lab Sample ID: 400-126078-22

Date Collected: 08/03/16 16:30

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266813	08/26/16 16:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	270530	09/19/16 09:40	ALS	TAL SL
Total/NA	Prep	PrecSep_0			266825	08/26/16 22:38	MCJ	TAL SL
Total/NA	Analysis	9320		1	269331	09/13/16 12:52	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	RTM	TAL SL

Client Sample ID: AW19678 MW-8 DUP

Lab Sample ID: 400-126078-23

Date Collected: 08/03/16 16:30

Matrix: Water

Date Received: 08/19/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266813	08/26/16 16:00	MCJ	TAL SL
Total/NA	Analysis	9315		1	270530	09/19/16 09:40	ALS	TAL SL
Total/NA	Prep	PrecSep_0			266825	08/26/16 22:38	MCJ	TAL SL
Total/NA	Analysis	9320		1	269331	09/13/16 12:52	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	271037	09/21/16 18:23	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Rad

Prep Batch: 266812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126078-1	AW19566 MW-15	Total/NA	Water	PrecSep-21	
400-126078-2	AW19567 MW-16D	Total/NA	Water	PrecSep-21	
400-126078-3	AW19568 FB-1	Total/NA	Water	PrecSep-21	
400-126078-4	AW19569 MW-14	Total/NA	Water	PrecSep-21	
400-126078-5	AW19570 MW-13	Total/NA	Water	PrecSep-21	
400-126078-6	AW19571 MW-13 DUP	Total/NA	Water	PrecSep-21	
400-126078-7	AW19572 MW-11	Total/NA	Water	PrecSep-21	
400-126078-8	AW19573 MW-11 DISS	Dissolved	Water	PrecSep-21	
400-126078-9	AW19574 EB-1	Total/NA	Water	PrecSep-21	
400-126078-10	AW19575 MW-17	Total/NA	Water	PrecSep-21	
400-126078-11	AW19576 MW-19	Total/NA	Water	PrecSep-21	
400-126078-12	AW19577 MW-18	Total/NA	Water	PrecSep-21	
400-126078-13	AW19578 MW-21	Total/NA	Water	PrecSep-21	
400-126078-14	AW19579 MW-2	Total/NA	Water	PrecSep-21	
400-126078-15	AW19580 MW-7	Total/NA	Water	PrecSep-21	
400-126078-16	AW19581 MW-7 DISS	Dissolved	Water	PrecSep-21	
400-126078-17	AW19672 MW-9	Total/NA	Water	PrecSep-21	
400-126078-18	AW19673 MW-6D	Total/NA	Water	PrecSep-21	
400-126078-19	AW19674 MW-6S	Total/NA	Water	PrecSep-21	
400-126078-20	AW19675 MW-12	Total/NA	Water	PrecSep-21	
MB 160-266812/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-266812/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-126078-17 DU	AW19672 MW-9	Total/NA	Water	PrecSep-21	

Prep Batch: 266813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126078-21	AW19676 FB-2	Total/NA	Water	PrecSep-21	
400-126078-22	AW19677 MW-8	Total/NA	Water	PrecSep-21	
400-126078-23	AW19678 MW-8 DUP	Total/NA	Water	PrecSep-21	
MB 160-266813/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-266813/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-266813/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 266825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126078-21	AW19676 FB-2	Total/NA	Water	PrecSep_0	
400-126078-22	AW19677 MW-8	Total/NA	Water	PrecSep_0	
400-126078-23	AW19678 MW-8 DUP	Total/NA	Water	PrecSep_0	
MB 160-266825/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-266825/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-266825/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 267141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126078-1	AW19566 MW-15	Total/NA	Water	PrecSep_0	
400-126078-2	AW19567 MW-16D	Total/NA	Water	PrecSep_0	
400-126078-3	AW19568 FB-1	Total/NA	Water	PrecSep_0	
400-126078-4	AW19569 MW-14	Total/NA	Water	PrecSep_0	
400-126078-5	AW19570 MW-13	Total/NA	Water	PrecSep_0	
400-126078-6	AW19571 MW-13 DUP	Total/NA	Water	PrecSep_0	
400-126078-7	AW19572 MW-11	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (1)

Rad (Continued)

Prep Batch: 267141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126078-8	AW19573 MW-11 DISS	Dissolved	Water	PrecSep_0	
400-126078-9	AW19574 EB-1	Total/NA	Water	PrecSep_0	
400-126078-10	AW19575 MW-17	Total/NA	Water	PrecSep_0	
400-126078-11	AW19576 MW-19	Total/NA	Water	PrecSep_0	
400-126078-12	AW19577 MW-18	Total/NA	Water	PrecSep_0	
400-126078-13	AW19578 MW-21	Total/NA	Water	PrecSep_0	
400-126078-14	AW19579 MW-2	Total/NA	Water	PrecSep_0	
400-126078-15	AW19580 MW-7	Total/NA	Water	PrecSep_0	
400-126078-16	AW19581 MW-7 DISS	Dissolved	Water	PrecSep_0	
400-126078-17	AW19672 MW-9	Total/NA	Water	PrecSep_0	
400-126078-18	AW19673 MW-6D	Total/NA	Water	PrecSep_0	
400-126078-19	AW19674 MW-6S	Total/NA	Water	PrecSep_0	
400-126078-20	AW19675 MW-12	Total/NA	Water	PrecSep_0	
MB 160-267141/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-267141/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-126078-17 DU	AW19672 MW-9	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-266812/1-A
Matrix: Water
Analysis Batch: 270709

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266812

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07045	U	0.0716	0.0719	1.00	0.114	pCi/L	08/26/16 15:59	09/20/16 08:18	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		40 - 110					08/26/16 15:59	09/20/16 08:18	1

Lab Sample ID: LCS 160-266812/2-A
Matrix: Water
Analysis Batch: 270709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266812

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	14.9	20.05		1.94	1.00	0.106	pCi/L	135	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	84.0		40 - 110						

Lab Sample ID: 400-126078-17 DU
Matrix: Water
Analysis Batch: 270700

Client Sample ID: AW19672 MW-9
Prep Type: Total/NA
Prep Batch: 266812

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.248		0.2189		0.0987	1.00	0.121	pCi/L	0.14	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	85.8		40 - 110							

Lab Sample ID: MB 160-266813/1-A
Matrix: Water
Analysis Batch: 270524

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266813

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04923	U	0.0568	0.0570	1.00	0.0927	pCi/L	08/26/16 16:00	09/19/16 09:36	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					08/26/16 16:00	09/19/16 09:36	1

Lab Sample ID: LCS 160-266813/2-A
Matrix: Water
Analysis Batch: 270529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266813

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	8.931		0.908	1.00	0.0817	pCi/L	80	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

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

Lab Sample ID: LCS 160-266813/2-A
Matrix: Water
Analysis Batch: 270529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266813

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	82.6		40 - 110

Lab Sample ID: LCSD 160-266813/3-A
Matrix: Water
Analysis Batch: 270529

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 266813

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	*	1.19	1.00	0.0834	pCi/L	108	68 - 137	1.48	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	84.3		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-266825/1-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266825

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1099	U	0.246	0.247	1.00	0.423	pCi/L	08/26/16 22:38	09/13/16 12:46	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110	08/26/16 22:38	09/13/16 12:46	1
Y Carrier	90.5		40 - 110	08/26/16 22:38	09/13/16 12:46	1

Lab Sample ID: LCS 160-266825/2-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266825

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.6	13.87		1.51	1.00	0.353	pCi/L	95	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	82.6		40 - 110
Y Carrier	95.0		40 - 110

Lab Sample ID: LCSD 160-266825/3-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 266825

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	14.6	16.17		1.72	1.00	0.341	pCi/L	111	56 - 140	0.71	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-266825/3-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 266825

	LCSD	LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	84.3		40 - 110
Y Carrier	91.6		40 - 110

Lab Sample ID: MB 160-267141/1-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 267141

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2592	U	0.367	0.368	1.00	0.615	pCi/L	08/29/16 16:59	09/13/16 18:52	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		40 - 110	08/29/16 16:59	09/13/16 18:52	1
Y Carrier	76.3		40 - 110	08/29/16 16:59	09/13/16 18:52	1

Lab Sample ID: LCS 160-267141/2-A
Matrix: Water
Analysis Batch: 269321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 267141

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	19.4	22.21		2.41	1.00	0.558	pCi/L	114	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.0		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: 400-126078-17 DU
Matrix: Water
Analysis Batch: 269330

Client Sample ID: AW19672 MW-9
Prep Type: Total/NA
Prep Batch: 267141

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.00728	U	0.08152	U	0.359	1.00	0.628	pCi/L	0.12	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	85.8		40 - 110
Y Carrier	90.1		40 - 110

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (1)

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

Lab Sample ID: 400-126078-17 DU
 Matrix: Water
 Analysis Batch: 271037

Client Sample ID: AW19672 MW-9
 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	0.241	U	0.3004	U	0.373	5.00	0.628	pCi/L	0.08	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Chain of Custody Record

Client Information Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project #: 40007143 CCR Site: Gorgas Ash Pond (1)		Sampler: Jason Rouss Phone: Lab PVI: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 1 of 3 Job #:	
Due Date Requested: TAT Requested (days): Routine PO #: W/O #: Project #: 40007143 SOW#:		Analysis Requested			
Sample Identification		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc Reform MS/MSD (Yes or No) <input checked="" type="checkbox"/>			
Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=wastewater, BT=TESUC, A=Air) Preservation Code:		Total Number of Containers			
AW19566	8/1/16	1350	G	Water	MW-15
AW19567	8/1/16	1555	G	Water	MW-16D
AW19568	8/1/16	1618	G	Water	FB-1 (Field Blank)
AW19569	8/2/16	1010	G	Water	MW-14
AW19570	8/2/16	1150	G	Water	MW-13
AW19571	8/2/16	1150	G	Water	MW-13 Dup (Sample Duplicate)
AW19572	8/2/16	1558	G	Water	MW-11
AW19573	8/2/16	1617	G	Water	MW-11 Diss (Dissolved Sample)
AW19574	8/2/16	1805	G	Water	EB-1 (Equipment Blank)
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Time:			
Relinquished by: Sarah Copeland Date/Time: 08/18/2016; 0900		Method of Shipment:			
Relinquished by:		Received by: <i>[Signature]</i> Date/Time: 8/19/16			
Relinquished by:		Received by:			
Relinquished by:		Received by:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) and Other Remarks: 21.9C 24.5C IRS			



Chain of Custody Record

Client Information		Sampler: Nick Plitts	Lab PM: Whitmore, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Sarah Copeland		Phone:	E-Mail: cheyenne.whitmore@testamericainc.com	Page: Page 2 of 3	Job #:
Company: Alabama Power General Test Laboratory		Due Date Requested:	Analysis Requested		
Address: 744 County Rd 87 GSC #8		TAI Requested (days): Routine	Total Number of Containers		
City: Calera		PO #:	Preservation Codes:		
State, Zip: AL, 35040		WO #:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (Specify)		
Phone: 205-664-6121(Tel)		Project #: 40007143	Special Instructions/Note:		
Email: sgcopela@southernmco.com		SSOW#:	MW-17 MW-19 MW-18 MW-21 MW-2 MW-7 MW-7 Diss (Dissolved Sample)		
Project Name: CCR		Site: Gorgas Ash Pond (1)	Special Instructions/Note:		
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, As=Asp)
AW19575	8/1/16	1323	G	Water	X
AW19576	8/1/16	1600	G	Water	X
AW19577	8/2/16	0905	G	Water	X
AW19578	8/2/16	1153	G	Water	X
AW19579	8/2/16	1330	G	Water	X
AW19580	8/2/16	1720	G	Water	X
AW19581	8/2/16	1720	G	Water	X
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by:		Date:	Time:		
Relinquished by: Sarah Copeland		Date/Time: 08/18/2016, 0900	Method of Shipment		
Relinquished by:		Date/Time:	Received by: Company APC		
Relinquished by:		Date/Time:	Received by: Company		
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:			



Client Information				Sampler:		Lab PM:		Carrier Tracking No(s):			COC No:	
Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Gorgas Ash Pond (1)				Jason Rous Phone: Sarah Copeland		Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com					400-56525-24537.1	
Due Date Requested:				TAT Requested (days):		Analysis Requested			Preservation Codes:			
Routine									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 Other:			
PO #:				WO #:					M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)			
Project #: 40007143				CCR					Special Instructions/Note: MW-9 MW-6D MW-6S MW-12 FB-2 (Field Blank) MW-8 MW-8 Dup (Sample Duplicate)			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Performance/MSD (Yes or No)	Total Number of containers					
AW19672	8/3/16	1000	G	Water	X	X						
AW19673	8/3/16	1142	G	Water	X	X						
AW19674	8/3/16	1200	G	Water	X	X						
AW19675	8/3/16	1430	G	Water	X	X						
AW19676	8/3/16	1455	G	Water	X	X						
AW19677	8/3/16	1630	G	Water	X	X						
AW19678	8/3/16	1630	G	Water	X	X						
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological												
Deliverable Requested: I, II, III, IV, Other (specify) I: _____ II: _____ III: _____ IV: _____ Other: _____												
Empty Kit Relinquished by:												
Relinquished by: Sarah Copeland Date/Time: 08/18/2016; 0900 Date/Time: Date/Time: Date/Time:												
Relinquished by:												
Relinquished by:												
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:								



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-126078-1
SDG Number: Gorgas Ash Pond (1)

Login Number: 126078

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.5°C, 27.4°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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
 SDG: Gorgas Ash Pond (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	08-31-17
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	10-31-16 *
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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-126078-1
SDG: Gorgas Ash Pond (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	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	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	08-31-16 *

* Certification renewal pending - certification considered valid.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1043
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_1043

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW24070	576513	576515	576517	WMWGORAP_1043
AW24071	576513	576515	576517	WMWGORAP_1043
AW24072	576513	576515	576517	WMWGORAP_1043
AW24073	576513	576515	576517	WMWGORAP_1043
AW24074	576513	576515	576517	WMWGORAP_1043
AW24075	576513	576515	576517	WMWGORAP_1043
AW24076	576513	576515	576517	WMWGORAP_1043
AW24077	576513	576515	576517	WMWGORAP_1043
AW24079	576513	576515	576517	WMWGORAP_1043
AW24080	576513	576515	576517	WMWGORAP_1043
AW24081	576514	576516	576518	WMWGORAP_1043
AW24082	576514	576516	576518	WMWGORAP_1043
AW24083	576514	576516	576518	WMWGORAP_1043
AW24084	576514	576516	576518	WMWGORAP_1043
AW24085	576514	576516	576518	WMWGORAP_1043
AW24086	576514	576516	576518	WMWGORAP_1043
AW24087	576514	576516	576518	WMWGORAP_1043
AW24088	576514	576516	576518	WMWGORAP_1043
AW24089	576514	576516	576518	WMWGORAP_1043
AW24090	576514	576516	576518	WMWGORAP_1043
AW24078	577145	577146	577147	WMWGORAP_1043
AW24091	577195	577196	577197	WMWGORAP_1043

4. All of the above samples were analyzed and prepared by EPA 300.0.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exception: the blank for anion sulfate in batch 576517 presented a negative concentration above the MDL of 0.3, at -0.301 mg/L. One batch sample (AW24072) presented a non-detect result for sulfate, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value.
- All laboratory fortified blanks (LFB) were within acceptance criteria for the anions requested, with the following exceptions:
 1. No closing LFB was listed or run for the dilution re-analysis for sulfate in batch 576517. Due to absence of a closing LFB, the reported result for the following sample dilutions for sulfate are qualified as quantitatively estimated with indeterminate bias direction and magnitude: AW24074, AW24076 and AW24077.
 2. No closing LFB was listed or run for the dilution re-analyses for chloride or sulfate in batches 576514 & 576518, respectively. Due to absence of a closing LFB, the reported results for the following sample dilutions for chloride and for sulfate are qualified as quantitatively estimated with indeterminate bias direction and magnitude: for chloride, AW24087 only, and for sulfate, AW24090 only.
 3. No opening or closing LFB were run for the dilution re-analyses for sulfate in batch 577147. Due to absence of LFB, the reported result for the following sample dilution for sulfate is qualified as quantitatively estimated with indeterminate bias direction and magnitude: AW24078.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met. It is noted that the LFM for the sample dilution sequence for sulfate for batches 576518 & 577147 was diluted 10x prior to spiking, and the diluted LFM sample spiked at 10x normal concentration, with acceptable recovery. The LFM for the sample dilution sequence for sulfate in batch 577197 was diluted 20x prior to spiking, and the diluted LFM sample spiked at 20x normal concentration, with acceptable recovery.



- A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. Sample AW24087 was re-analyzed for chloride at a 2x dilution, and samples AW24074, AW24076, AW24077, AW24090, & AW24078 were re-analyzed for sulfate at a 10x dilution, due to the undiluted results exceeding the calibrated range of the detector. The dilution results for sulfate for these samples should be used; reporting limit (RL) values are adjusted upward to reflect the dilution factor applied.

<u>Sample ID</u>		<u>Analyte</u>		<u>Dilution Factor</u>
AW24074		Sulfate		10X
AW24076		Sulfate		10X
AW24077		Sulfate		10X
AW24087		Chloride		2X
AW24090		Sulfate		10X
AW24078		Sulfate		10X

8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1043

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW24070	20161012A	WMWGORAP_1043
AW24071	20161012A	WMWGORAP_1043
AW24072	20161012A	WMWGORAP_1043
AW24073	20161012A	WMWGORAP_1043
AW24074	20161012A	WMWGORAP_1043
AW24075	20161012A	WMWGORAP_1043
AW24076	20161012A	WMWGORAP_1043
AW24077	20161012A	WMWGORAP_1043
AW24079	20161012A	WMWGORAP_1043
AW24080	20161012B	WMWGORAP_1043
AW24081	20161012B	WMWGORAP_1043
AW24082	20161012B	WMWGORAP_1043
AW24083	20161012B	WMWGORAP_1043
AW24084	20161012B	WMWGORAP_1043
AW24085	20161012B	WMWGORAP_1043
AW24086	20161012B	WMWGORAP_1043
AW24087	20161012B	WMWGORAP_1043
AW24088	20161012B	WMWGORAP_1043
AW24089	20161012B	WMWGORAP_1043
AW24090	20161012C	WMWGORAP_1043
AW24091	20161012C	WMWGORAP_1043
AW24078	20161013DISS	WMWGORAP_1043

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 20161013DISS, which is a dissolved sample and does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.



<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW24073	Calcium	10X
AW24074	Calcium	10X
AW24075	Calcium	10X
AW24076	Calcium	10X
AW24083	Calcium	10X
AW24084	Calcium	10X
AW24089MS	Calcium	10X
AW24089MSD	Calcium	10X
AW24090	Calcium	10X

8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1043

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW24070	577980	WMWGORAP_1043
AW24071	577980	WMWGORAP_1043
AW24072	577980	WMWGORAP_1043
AW24073	577980	WMWGORAP_1043
AW24074	577980	WMWGORAP_1043
AW24075	577980	WMWGORAP_1043
AW24076	577980	WMWGORAP_1043
AW24077	577980	WMWGORAP_1043
AW24079	577980	WMWGORAP_1043
AW24080	577980	WMWGORAP_1043
AW24081	577981	WMWGORAP_1043
AW24082	577981	WMWGORAP_1043
AW24083	577981	WMWGORAP_1043
AW24084	577981	WMWGORAP_1043
AW24085	577981	WMWGORAP_1043
AW24086	577981	WMWGORAP_1043
AW24087	577981	WMWGORAP_1043
AW24088	577981	WMWGORAP_1043
AW24089	577981	WMWGORAP_1043
AW24090	577981	WMWGORAP_1043
AW24091	577982	WMWGORAP_1043
AW24078	578564	WMWGORAP_1043

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 578564, which is a dissolved sample and does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1043

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW24070	576793	WMWGORAP_1043
AW24071	576793	WMWGORAP_1043
AW24072	576793	WMWGORAP_1043
AW24073	576793	WMWGORAP_1043
AW24074	576794	WMWGORAP_1043
AW24075	576794	WMWGORAP_1043
AW24076	576794	WMWGORAP_1043
AW24077	576794	WMWGORAP_1043
AW24079	576794	WMWGORAP_1043
AW24080	576794	WMWGORAP_1043
AW24081	576794	WMWGORAP_1043
AW24082	576794	WMWGORAP_1043
AW24083	576794	WMWGORAP_1043
AW24084	576794	WMWGORAP_1043
AW24078	578314	WMWGORAP_1043
AW24085	578315	WMWGORAP_1043
AW24086	578315	WMWGORAP_1043
AW24087	578315	WMWGORAP_1043
AW24088	578315	WMWGORAP_1043
AW24089	578315	WMWGORAP_1043
AW24090	578315	WMWGORAP_1043
AW24091	578315	WMWGORAP_1043

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution.
8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1043

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW24070	576577	WMWGORAP_1043
AW24071	576577	WMWGORAP_1043
AW24072	576577	WMWGORAP_1043
AW24073	576577	WMWGORAP_1043
AW24074	576577	WMWGORAP_1043
AW24075	576577	WMWGORAP_1043
AW24076	576577	WMWGORAP_1043
AW24077	576577	WMWGORAP_1043
AW24079	576577	WMWGORAP_1043
AW24080	576578	WMWGORAP_1043
AW24081	576578	WMWGORAP_1043
AW24082	576578	WMWGORAP_1043
AW24083	576578	WMWGORAP_1043
AW24084	576578	WMWGORAP_1043
AW24085	576578	WMWGORAP_1043
AW24086	576578	WMWGORAP_1043
AW24087	576578	WMWGORAP_1043
AW24088	576578	WMWGORAP_1043
AW24089	576578	WMWGORAP_1043
AW24090	576579	WMWGORAP_1043
AW24091	576579	WMWGORAP_1043

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The TDS reporting limit was incorrectly listed as 2.5 mg/L. It has now been correctly updated. Samples AW24072, AW24085 & AW24091 results changed to Not Detected.



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue, with the exception of the following: AW23932, AW24072, AW24085 & AW24091 which were <2.5.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW24070

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	J 0.000636	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	J 0.00137	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0503	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J 0.0716	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	4.30	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0467	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00889	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	441	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	7.78	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.151	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	12.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW24070

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24073 Mercury, Total by CVAA	mg/L	0.0000782	0.0005	0.004	0.00387	0.00385	0.00379	0.0034 to 0.0046	96.8	70 to 130	0.487	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW24070

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24077	Solids, Dissolved	mg/L	2.00	25				370	50.0	40 to 60			0.00	5
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04		0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8		2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4		12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW24071

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0744	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J 0.0937	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	0.724	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0490	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	398	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	5.98	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	1.55	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	1.22	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW24071

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.00000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	
AW24073 Mercury, Total by CVAA	mg/L	0.0000782	0.0005	0.004	0.00387	0.00385	0.00379	0.0034 to 0.0046	96.8	70 to 130	0.487	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW24071

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW24072

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW24072

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24073 Mercury, Total by CVAA	mg/L	0.0000782	0.0005	0.004	0.00387	0.00385	0.00379	0.0034 to 0.0046	96.8	70 to 130	0.487	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW24072

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW24073

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.203	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	43.6	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0141	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	232	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	6.28	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.098	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	21.3	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW24073

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AW24079	Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20
AW24080	Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20
AW24080	Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20
AW24080	Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20
AW24080	Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20
AW24080	Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20
AW24079	Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20
AW24080	Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20
AW24080	Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20
AW24080	Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20
AW24079	Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20
AW24080	Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20
AW24073	Mercury, Total by CVAA	mg/L	0.0000782	0.0005	0.004	0.00387	0.00385	0.00379	0.0034 to 0.0046	96.8	70 to 130	0.487	20
AW24080	Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20
AW24080	Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW24073

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW24074

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	0.0527	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.107	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	1.32	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	110	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	0.250	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0567	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		50	848	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	23.3	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.213	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		10	3.0	10	440	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW24074

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW24074

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW24075

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	0.0625	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.685	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	1.01	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	51.2	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	0.223	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00481	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	298	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	5.31	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.087	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	56.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW24075

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.00000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW24075

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW24076

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	0.0103	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.228	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	1.16	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	51.1	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00202	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	444	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	20.9	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.074	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		10	3.0	10	209	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW24076

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.00000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW24076

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW24077

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	0.179	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0979	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	1.40	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	15.4	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	0.136	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.146	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	J 0.00240	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	370	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	3.74	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.061	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		10	3.0	10	146	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW24077

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW24077

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24077	Solids, Dissolved	mg/L	2.00	25			370	50.0	40 to 60			0.00	5
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AW24078

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0010	0.005	0.180	mg/L
* Barium, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0020	0.010	0.0466	mg/L
* Beryllium, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Dissolved	HRG	10/13/2016	EPA 200.7		1	0.02	0.1	1.39	mg/L
* Calcium, Dissolved	HRG	10/13/2016	EPA 200.7		1	0.1	0.5	15.1	mg/L
* Cadmium, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	10/13/2016	EPA 200.7		1	0.01	0.05	0.136	mg/L
* Molybdenum, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0020	0.010	0.141	mg/L
* Lead, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Dissolved	TAS	10/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Chloride, Dissolved	SES	9/30/2016	EPA 300.0		1	0.04	0.25	3.65	mg/L
Fluoride, Dissolved	SES	9/30/2016	EPA 300.0		1	0.01	0.3	J 0.048	mg/L
Sulfate, Dissolved	SES	10/1/2016	EPA 300.0		10	3.0	10	144	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY:

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AW24078

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AW24634	Beryllium, Dissolved	mg/L	0.00000918	0.00132	0.10	0.0800	0.0862		80.0	70 to 130	7.43	20	
AW24634	Antimony, Dissolved	mg/L	0.0000247	0.00132	0.10	0.0839	0.0892		83.9	70 to 130	6.16	20	
AW24634	Cobalt, Dissolved	mg/L	-0.000000197	0.0044	0.10	0.0783	0.0837		78.3	70 to 130	6.71	20	
AW24634	Lithium, Dissolved	mg/L	0.0000242	0.022	0.20	0.349	0.352	0.190	0.17 to 0.23	106	70 to 130	0.856	20
AW24634	Arsenic, Dissolved	mg/L	0.00000428	0.0022	0.10	0.0880	0.0919		85.6	70 to 130	4.36	20	
AW24634	Cadmium, Dissolved	mg/L	0.00000107	0.00044	0.10	0.0738	0.0784		73.8	70 to 130	6.08	20	
AW24634	Barium, Dissolved	mg/L	0.00000340	0.0044	0.10	0.121	0.129		85.1	70 to 130	6.52	20	
AW24634	Calcium, Dissolved	mg/L	-0.0337	0.22	5.00	102	103	4.51	4.25 to 5.75	182	70 to 130	0.976	20
AW24634	Chromium, Dissolved	mg/L	0.00000498	0.0044	0.10	0.0785	0.0827		78.5	70 to 130	5.22	20	
AW24634	Lead, Dissolved	mg/L	0.00000440	0.0022	0.10	0.0843	0.0904		84.3	70 to 130	7.00	20	
AW24634	Molybdenum, Dissolved	mg/L	0.00000593	0.0044	0.10	0.0949	0.101		83.8	70 to 130	6.32	20	
AW24634	Thallium, Dissolved	mg/L	0.00000454	0.00044	0.10	0.0874	0.0939		87.4	70 to 130	7.16	20	
AW24078	Mercury, Dissolved by CVAA	mg/L	0.0000767	0.0005	0.004	0.00363	0.00363	0.00368	0.0034 to 0.0046	90.8	70 to 130	0.0551	20
AW24634	Boron, Dissolved	mg/L	-0.00462	0.044	1.00	1.04	1.06	0.932	0.85 to 1.15	96.7	70 to 130	1.90	20
AW24634	Selenium, Dissolved	mg/L	0.0000203	0.0044	0.10	0.0785	0.0773		78.5	70 to 130	1.56	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY:

Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AW24078

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24078	Sulfate, Dissolved	mg/L	-0.262	1.0	200.00	343		143	19.0	18 to 22	99.5	80 to 120	0.697	20
AW24078	Chloride, Dissolved	mg/L	0.000	0.25	10.00	13.6		3.65	9.84	9 to 11	99.5	80 to 120	0.00	20
AW24078	Fluoride, Dissolved	mg/L	0.000	0.3	2.00	1.86		0.048	1.83	1.8 to 2.2	90.6	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: REVISED COPY:
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW24079

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	J 0.00112	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0811	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	11.7	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00362	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00266	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	128	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	2.95	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.098	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	4.27	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW24079

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24079 Calcium, Total	mg/L	-0.0320	0.22	5.00	16.5	16.4	4.79	4.25 to 5.75	95.1	70 to 130	0.608	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24079 Lithium, Total	mg/L	0.000213	0.022	0.20	0.215	0.213	0.203	0.17 to 0.23	108	70 to 130	0.935	20	
AW24080 Cadmium, Total	mg/L	0.00000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24079 Boron, Total	mg/L	0.00230	0.044	1.00	0.952	0.950	0.923	0.85 to 1.15	95.2	70 to 130	0.210	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW24079

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24077	Solids, Dissolved	mg/L	2.00	25				370	50.0	40 to 60			0.00	5
AW24080	Fluoride, Total	mg/L	0.000	0.3	2.00	2.04		0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24080	Chloride, Total	mg/L	0.000	0.25	10.00	12.8		2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0	20.00	33.4		12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW24080

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.276	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J 0.0262	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	31.7	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0346	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	220	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	2.51	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.078	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	12.9	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW24080

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24080 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.0960	0.0993	0.0988	0.085 to 0.115	96.0	70 to 130	3.36	20	
AW24080 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0947	0.0978	0.0962	0.085 to 0.115	94.7	70 to 130	3.21	20	
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20	
AW24080 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0973	0.0981	0.0985	0.085 to 0.115	97.3	70 to 130	0.873	20	
AW24080 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.0983	0.101	0.0995	0.085 to 0.115	98.3	70 to 130	3.08	20	
AW24080 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0946	0.0975	0.0998	0.085 to 0.115	94.6	70 to 130	2.98	20	
AW24080 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0878	0.0896	0.0913	0.085 to 0.115	87.8	70 to 130	2.03	20	
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20	
AW24080 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.347	0.355	0.0863	0.085 to 0.115	71.8	70 to 130	2.22	20	
AW24080 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.0997	0.101	0.0975	0.085 to 0.115	99.7	70 to 130	1.57	20	
AW24080 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0945	0.0974	0.0959	0.085 to 0.115	94.5	70 to 130	3.06	20	
AW24080 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0992	0.101	0.105	0.085 to 0.115	99.2	70 to 130	1.46	20	
AW24080 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0947	0.0974	0.103	0.085 to 0.115	94.7	70 to 130	2.80	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW24080

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24080	Fluoride, Total	mg/L	0.000	0.3		2.00	2.04	0.078	1.85	1.8 to 2.2	98.1	80 to 120	0.00	20
AW24089	Solids, Dissolved	mg/L	5.00	25				265	46.0	40 to 60			0.189	5
AW24080	Chloride, Total	mg/L	0.000	0.25		10.00	12.8	2.51	9.96	9 to 11	103	80 to 120	0.00	20
AW24080	Sulfate, Total	mg/L	-0.301	1.0		20.00	33.4	12.9	18.6	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW24081

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	J 0.00173	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.219	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	33.9	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0344	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	225	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	4.90	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.108	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	9.90	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW24081

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20	
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20	
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20	
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20	
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20	
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20	
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20	
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20	
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20	
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20	
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20	
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20	
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 19-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW24081

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW24082

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Radiological										
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1				Attached	
Metals, Cyanide, Total Phenols										
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	J	0.000876	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005		0.0111	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010		0.193	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U	Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J	0.0706	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5		14.7	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U	Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U	Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05		0.144	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010		0.0683	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U	Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U	Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		50		434	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25		8.60	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3		0.700	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1		53.3	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW24082

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20	
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20	
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20	
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20	
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20	
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20	
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20	
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20	
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20	
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20	
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20	
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20	
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW24082

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW24083

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.153	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	46.3	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0116	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	221	mg/L
* Chloride, Total	SES	9/22/2016	EPA 300.0		1	0.04	0.25	2.94	mg/L
* Fluoride, Total	SES	9/22/2016	EPA 300.0		1	0.01	0.3	J 0.122	mg/L
* Sulfate, Total	SES	9/22/2016	EPA 300.0		1	0.3	1	11.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW24083

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20	
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20	
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20	
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20	
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20	
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20	
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20	
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20	
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20	
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20	
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20	
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20	
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW24083

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW24084

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.158	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	43.3	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/28/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0116	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	223	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		1	0.04	0.25	2.94	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	J 0.122	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		1	0.3	1	11.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW24084

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20	
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20	
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20	
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20	
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20	
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20	
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20	
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20	
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20	
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20	
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20	
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20	
AW24084 Mercury, Total by CVAA	mg/L	0.0000576	0.0005	0.004	0.00386	0.00385	0.00383	0.0034 to 0.0046	96.4	70 to 130	0.179	20	
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20	
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW24084

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	LFB	Limit	Rec	Prec	Prec	Limit
								Duplicate	LFB			Rec	Limit	Prec	Limit
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1		2.12	10.0		9 to 11	99.9	80 to 120	0.473	20
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95		0.088	1.86		1.8 to 2.2	93.0	80 to 120	2.25	20
AW24089	Solids, Dissolved	mg/L	5.00	25				265	46.0		40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400		196	18.7		18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW24085

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW24085

Sample Analysis	Units	MB	MB				LFB			Rec		Prec
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20
AW24625 Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046	90.3	70 to 130	0.961	20
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW24085

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW24086

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	0.0746	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.102	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	0.299	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	27.0	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0225	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00762	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	542	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		1	0.04	0.25	12.9	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	0.691	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		1	0.3	1	1.42	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW24086

Sample Analysis	Units	MB	MB				LFB			Rec		Prec
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20
AW24625 Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046	90.3	70 to 130	0.961	20
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 20-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW24086

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW24087

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	J 0.00258	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0458	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J 0.0723	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	4.51	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00233	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	0.153	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0362	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		50	368	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		2	0.08	0.50	26.8	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	J 0.231	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		1	0.3	1	8.71	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW24087

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115		83.1	70 to 130	3.60	20
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115		96.9	70 to 130	2.00	20
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115		98.9	70 to 130	2.29	20
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23		102	70 to 130	0.440	20
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115		93.9	70 to 130	3.26	20
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15		92.1	70 to 130	1.16	20
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115		85.3	70 to 130	4.10	20
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115		100	70 to 130	2.34	20
AW24625 Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046		90.3	70 to 130	0.961	20
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115		96.3	70 to 130	3.86	20
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115		93.3	70 to 130	4.68	20
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75		107	70 to 130	2.55	20
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115		97.9	70 to 130	2.17	20
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115		98.2	70 to 130	4.74	20
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115		94.0	70 to 130	3.71	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW24087

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW24088

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.371	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J 0.0235	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	38.1	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0223	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0117	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	267	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		1	0.04	0.25	6.54	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	0.303	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		1	0.3	1	8.38	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW24088

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090	Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20
AW24090	Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20
AW24090	Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20
AW24089	Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20
AW24090	Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20
AW24090	Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20
AW24090	Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20
AW24089	Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20
AW24090	Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20
AW24090	Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20
AW24625	Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046	90.3	70 to 130	0.961	20
AW24089	Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20
AW24090	Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20
AW24090	Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20
AW24090	Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW24088

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AW24089

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.372	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	J 0.0225	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	38.3	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	J 0.0228	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0106	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	264	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		1	0.04	0.25	6.48	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	0.300	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		1	0.3	1	8.22	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AW24089

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20	
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20	
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20	
AW24089 Lithium, Total	mg/L	0.000157	0.022	0.20	0.227	0.228	0.201	0.17 to 0.23	102	70 to 130	0.440	20	
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20	
AW24089 Calcium, Total	mg/L	-0.0317	0.22	5.00	43.7	42.6	4.72	4.25 to 5.75	107	70 to 130	2.55	20	
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20	
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20	
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20	
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20	
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20	
AW24089 Boron, Total	mg/L	-0.000781	0.044	1.00	0.944	0.955	0.907	0.85 to 1.15	92.1	70 to 130	1.16	20	
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20	
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20	
AW24625 Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046	90.3	70 to 130	0.961	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AW24089

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20	
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20	
AW24089	Solids, Dissolved	mg/L	5.00	25			265	46.0	40 to 60			0.189	5	
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW24090

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	0.00620	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	0.0218	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	0.192	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		10	1.0	5.0	81.5	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	0.0902	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00500	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	508	mg/L
* Chloride, Total	SES	9/23/2016	EPA 300.0		1	0.04	0.25	2.11	mg/L
* Fluoride, Total	SES	9/23/2016	EPA 300.0		1	0.01	0.3	J 0.090	mg/L
* Sulfate, Total	SES	9/23/2016	EPA 300.0		10	3.0	10	195	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW24090

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW24090 Beryllium, Total	mg/L	0.00000314	0.00132	0.10	0.0989	0.101	0.105	0.085 to 0.115	98.9	70 to 130	2.29	20	
AW24630 Calcium, Total	mg/L	-0.0305	0.22	5.00	4.74	4.56	4.83	4.25 to 5.75	94.8	70 to 130	3.87	20	
AW24090 Arsenic, Total	mg/L	0.0000130	0.0022	0.10	0.103	0.105	0.0988	0.085 to 0.115	96.9	70 to 130	2.00	20	
AW24090 Chromium, Total	mg/L	0.00000798	0.0044	0.10	0.0939	0.0970	0.0962	0.085 to 0.115	93.9	70 to 130	3.26	20	
AW24090 Barium, Total	mg/L	-0.0000142	0.0044	0.10	0.105	0.109	0.0863	0.085 to 0.115	83.1	70 to 130	3.60	20	
AW24090 Cadmium, Total	mg/L	0.000000902	0.00044	0.10	0.0853	0.0889	0.0913	0.085 to 0.115	85.3	70 to 130	4.10	20	
AW24090 Thallium, Total	mg/L	0.00000662	0.00044	0.10	0.100	0.103	0.0975	0.085 to 0.115	100	70 to 130	2.34	20	
AW24625 Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046	90.3	70 to 130	0.961	20	
AW24090 Antimony, Total	mg/L	0.0000998	0.00132	0.10	0.0963	0.100	0.0959	0.085 to 0.115	96.3	70 to 130	3.86	20	
AW24090 Cobalt, Total	mg/L	-0.000000113	0.0044	0.10	0.0933	0.0977	0.103	0.085 to 0.115	93.3	70 to 130	4.68	20	
AW24630 Lithium, Total	mg/L	0.000200	0.022	0.20	0.200	0.202	0.203	0.17 to 0.23	99.9	70 to 130	0.995	20	
AW24090 Lead, Total	mg/L	0.00000675	0.0022	0.10	0.0979	0.100	0.0985	0.085 to 0.115	97.9	70 to 130	2.17	20	
AW24090 Molybdenum, Total	mg/L	0.00000765	0.0044	0.10	0.103	0.108	0.0995	0.085 to 0.115	98.2	70 to 130	4.74	20	
AW24090 Selenium, Total	mg/L	0.0000888	0.0044	0.10	0.0940	0.0976	0.0998	0.085 to 0.115	94.0	70 to 130	3.71	20	
AW24630 Boron, Total	mg/L	0.00129	0.044	1.00	0.921	0.921	0.928	0.85 to 1.15	92.1	70 to 130	0.00	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW24090

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW24090	Sulfate, Total	mg/L	-0.297	1.0	200	400	196	18.7	18 to 22	102	80 to 120	0.512	20
AW24090	Solids, Dissolved	mg/L	5.00	25			512	46.0	40 to 60			0.392	5
AW24090	Chloride, Total	mg/L	0.000	0.25	10.00	12.1	2.12	10.0	9 to 11	99.9	80 to 120	0.473	20
AW24090	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.088	1.86	1.8 to 2.2	93.0	80 to 120	2.25	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW24091

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	TAS	10/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/12/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/12/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	10/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/11/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/12/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	10/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	10/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	10/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/30/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/30/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/30/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW24091

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AW24631	Molybdenum, Total	mg/L	0.00000613	0.0044	0.10	0.125	0.129	0.0993	0.085 to 0.115	101	70 to 130	3.19	20
AW24631	Beryllium, Total	mg/L	0.00000470	0.00132	0.10	0.0979	0.100	0.105	0.085 to 0.115	97.9	70 to 130	2.35	20
AW24630	Boron, Total	mg/L	0.00129	0.044	1.00	0.921	0.921	0.928	0.85 to 1.15	92.1	70 to 130	0.00	20
AW24625	Mercury, Total by CVAA	mg/L	0.0000818	0.0005	0.004	0.00361	0.00365	0.00378	0.0034 to 0.0046	90.3	70 to 130	0.961	20
AW24631	Selenium, Total	mg/L	0.000129	0.0044	0.10	0.0909	0.0932	0.0983	0.085 to 0.115	90.9	70 to 130	2.53	20
AW24631	Cadmium, Total	mg/L	0.00000137	0.00044	0.10	0.0889	0.0913	0.0909	0.085 to 0.115	88.9	70 to 130	2.57	20
AW24631	Thallium, Total	mg/L	0.00000731	0.00044	0.10	0.0991	0.102	0.0963	0.085 to 0.115	99.1	70 to 130	2.88	20
AW24630	Calcium, Total	mg/L	-0.0305	0.22	5.00	4.74	4.56	4.83	4.25 to 5.75	94.8	70 to 130	3.87	20
AW24631	Arsenic, Total	mg/L	0.0000139	0.0022	0.10	0.0956	0.0989	0.0964	0.085 to 0.115	94.2	70 to 130	3.38	20
AW24631	Lead, Total	mg/L	0.00000952	0.0022	0.10	0.0961	0.0988	0.0980	0.085 to 0.115	96.1	70 to 130	2.84	20
AW24630	Lithium, Total	mg/L	0.000200	0.022	0.20	0.200	0.202	0.203	0.17 to 0.23	99.9	70 to 130	0.995	20
AW24631	Antimony, Total	mg/L	0.000125	0.00132	0.10	0.0969	0.101	0.0964	0.085 to 0.115	96.9	70 to 130	3.73	20
AW24631	Barium, Total	mg/L	-0.0000151	0.0044	0.10	0.135	0.137	0.0879	0.085 to 0.115	87.1	70 to 130	1.34	20
AW24631	Chromium, Total	mg/L	0.0000222	0.0044	0.10	0.0945	0.0982	0.0941	0.085 to 0.115	94.5	70 to 130	3.85	20
AW24631	Cobalt, Total	mg/L	-0.000000125	0.0044	0.10	0.102	0.105	0.103	0.085 to 0.115	98.2	70 to 130	2.36	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 21-Sep-16
 Customer ID:
 Delivery Date: 22-Sep-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW24091

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW24652	Sulfate, Total	mg/L	-0.167	1.0	400	2130	1640	19.9	18 to 22	112	80 to 120	2.41	20
AW24652	Fluoride, Total	mg/L	0.000	0.3	2.00	1.84	0.035	1.91	1.8 to 2.2	90.2	80 to 120	0.00	20
AW24090	Solids, Dissolved	mg/L	5.00	25			512	46.0	40 to 60			0.392	5
AW24652	Chloride, Total	mg/L	0.000	0.25	10.00	13.5	4.01	9.84	9 to 11	95.0	80 to 120	0.250	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 6/7/2017
 Version: 2.0

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Bruce Williams	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	09/19/2016	14:20	3	Groundwater		AW24070
MW-2	09/19/2016	15:50	3	Groundwater		AW24071
FB-1	09/19/2016	16:10	3	Field Blank		AW24072

Relinquished By 	Received By Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.09.22 10:01:29 -05'00'</small>	Date/Time 09/19/2016 16:55 09/22/2016 10:01
-------------------------	---	---

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp 0.8 degrees C Thermometer ID 5408-27568-2-2 pH Strip ID 4831-24386-20-13
Turbidity ID	3901-20010-2-2	
Page 81 of 84		



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 09/22/2016 08:30

Requested Complete Date
 Site Representative
 Collector

Results To
 Requested By
 Location

Analysis Requested
 Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11	09/21/2016	09:35	3	Groundwater		AW24073
MW-18	09/21/2016	11:05	3	Groundwater		AW24074

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.09.22 10:02:50 -05'00'</small>	09/22/2016 10:02

SmarTroll ID <input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp <input type="text" value="0.2 degrees C"/> Thermometer ID <input type="text" value="5408-27568-2-2"/> pH Strip ID <input type="text" value="4831-24386-20-13"/>
Turbidity ID <input type="text" value="3901-20010-2-2"/>	



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 09/22/2016 09:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, John Pugh, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Ben Rothschadl"/>	Location	<input type="text" value="Gorgas Ash Pond"/>
Analysis Requested	<input type="text" value="Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle"/>		
Comments	<input type="text" value="AW24078 filtered using 0.45 um filter ID:5470-27977-9-1; Bottle 1 added 3.0 mL HNO3, Bottle 2 added 2.0mL HNO3 (9/22/2016) SGC"/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-06D	09/20/2016	10:08	3	Groundwater		AW24075
MW-06S	09/20/2016	11:26	3	Groundwater		AW24076
MW-07	09/21/2016	11:03	3	Groundwater		AW24077
MW-07 DIS	09/21/2016	11:11	3	Groundwater	<input checked="" type="checkbox"/>	AW24078
MW-08	09/21/2016	14:17	3	Groundwater		AW24079

Relinquished By	Received By	Date/Time
<div style="font-family: cursive; font-size: 1.2em; margin: 0;">Ben Rothschadl</div>	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.09.22 10:05:49 -05'00'</small>	09/22/2016 10:05

SmarTroll ID	<input type="text" value="4696-23441-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="3901-20009-2-1"/>	Cooler Temp
		<input type="text" value="1.2 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="4831-24386-20-13"/>



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 09/22/2016 08:34

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Bruce Williams	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond

Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle
Comments	

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16D	09/19/2016	14:25	4	Groundwater		AW24080
MW-14	09/19/2016	17:12	3	Groundwater		AW24081
MW-15	09/20/2016	12:30	3	Groundwater		AW24082
MW-13	09/20/2016	14:10	3	Groundwater		AW24083
MW-13 Dup	09/20/2016	14:10	3	Sample Duplicate		AW24084
FB-2	09/20/2016	14:28	3	Field Blank		AW24085
MW-12	09/20/2016	16:33	3	Groundwater		AW24086
MW-21	09/21/2016	10:40	3	Groundwater		AW24087
MW-19	09/21/2016	12:25	3	Groundwater		AW24088
MW-19 Dup	09/21/2016	12:25	3	Sample Duplicate		AW24089
MW-9	09/21/2016	14:48	3	Groundwater		AW24090
EB-1	09/21/2016	17:30	3	Equipment Blank		AW24091

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.09.22 10:07:19 -05'00'</small>	09/22/2016 10:07

SmarTroll ID	4696-23444-3-3
Turbidity ID	4677-23342-4-1

All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Cooler Temp	0.8 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	4831-24386-20-13

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: 400-127851-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (2)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

10/28/2016 5:00:29 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	28
Chronicle	29
QC Association	35
QC Sample Results	37
Chain of Custody	41
Receipt Checklists	43
Certification Summary	44

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (2)

Job ID: 400-127851-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-127851-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch: 160-273144: The following samples were prepared at a reduced aliquot due to limited volume AW24070 MW-17 (400-127851-1), AW24071 MW-2 (400-127851-2), AW24072 FB-1 (400-127851-3) and AW24073 MW-11 (400-127851-4).

Method(s) PrecSep_0: Radium-228 Prep Batch: 160-273146: The following samples were prepared at a reduced aliquot due to limited volume AW24074 MW-18 (400-127851-5), AW24075 MW-6D (400-127851-6), AW24076 MW-6S (400-127851-7), AW24077 MW-7 (400-127851-8), AW24078 MW-7 DISS (400-127851-9), AW24079 MW-8 (400-127851-10), AW24080 MW-16D (400-127851-11), AW24080 MW-16D (400-127851-11[DU]), AW24081 MW-14 (400-127851-12), AW24082 MW-15 (400-127851-13), AW24083 MW-13 (400-127851-14), AW24084 MW-13 DUP (400-127851-15), AW24085 FB-2 (400-127851-16), AW24086 MW-12 (400-127851-17), AW24087 MW-21 (400-127851-18), AW24088 MW-19 (400-127851-19), AW24089 MW-19 DUP (400-127851-20), AW24090 MW-9 (400-127851-21) and AW24091 EB-1 (400-127851-22).

Method(s) PrecSep-21: Radium-226 Prep Batch: 160-273139: The following samples were prepared at a reduced aliquot due to limited volume AW24074 MW-18 (400-127851-5), AW24075 MW-6D (400-127851-6), AW24076 MW-6S (400-127851-7), AW24077 MW-7 (400-127851-8), AW24078 MW-7 DISS (400-127851-9), AW24079 MW-8 (400-127851-10), AW24080 MW-16D (400-127851-11), AW24080 MW-16D (400-127851-11[DU]), AW24081 MW-14 (400-127851-12), AW24082 MW-15 (400-127851-13), AW24083 MW-13 (400-127851-14), AW24084 MW-13 DUP (400-127851-15), AW24085 FB-2 (400-127851-16), AW24086 MW-12 (400-127851-17), AW24087 MW-21 (400-127851-18), AW24088 MW-19 (400-127851-19), AW24089 MW-19 DUP (400-127851-20), AW24090 MW-9 (400-127851-21) and AW24091 EB-1 (400-127851-22).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-273142: The following samples were run at a reduced aliquot due to limited sample available: AW24070 MW-17 (400-127851-1), AW24071 MW-2 (400-127851-2), AW24072 FB-1 (400-127851-3) and AW24073 MW-11 (400-127851-4).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (2)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127851-1	AW24070 MW-17	Water	09/19/16 14:20	09/29/16 10:05
400-127851-2	AW24071 MW-2	Water	09/19/16 15:50	09/29/16 10:05
400-127851-3	AW24072 FB-1	Water	09/19/16 16:10	09/29/16 10:05
400-127851-4	AW24073 MW-11	Water	09/21/16 09:35	09/29/16 10:05
400-127851-5	AW24074 MW-18	Water	09/21/16 11:05	09/29/16 10:05
400-127851-6	AW24075 MW-6D	Water	09/20/16 10:08	09/29/16 10:05
400-127851-7	AW24076 MW-6S	Water	09/20/16 11:26	09/29/16 10:05
400-127851-8	AW24077 MW-7	Water	09/21/16 11:03	09/29/16 10:05
400-127851-9	AW24078 MW-7 DISS	Water	09/21/16 11:11	09/29/16 10:05
400-127851-10	AW24079 MW-8	Water	09/21/16 14:17	09/29/16 10:05
400-127851-11	AW24080 MW-16D	Water	09/19/16 14:25	09/29/16 10:05
400-127851-12	AW24081 MW-14	Water	09/19/16 17:12	09/29/16 10:05
400-127851-13	AW24082 MW-15	Water	09/20/16 12:30	09/29/16 10:05
400-127851-14	AW24083 MW-13	Water	09/20/16 14:10	09/29/16 10:05
400-127851-15	AW24084 MW-13 DUP	Water	09/20/16 14:10	09/29/16 10:05
400-127851-16	AW24085 FB-2	Water	09/20/16 14:28	09/29/16 10:05
400-127851-17	AW24086 MW-12	Water	09/20/16 16:33	09/29/16 10:05
400-127851-18	AW24087 MW-21	Water	09/21/16 10:40	09/29/16 10:05
400-127851-19	AW24088 MW-19	Water	09/21/16 12:25	09/29/16 10:05
400-127851-20	AW24089 MW-19 DUP	Water	09/21/16 12:25	09/29/16 10:05
400-127851-21	AW24090 MW-9	Water	09/21/16 14:48	09/29/16 10:05
400-127851-22	AW24091 EB-1	Water	09/21/16 17:30	09/29/16 10:05

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24070 MW-17

Lab Sample ID: 400-127851-1

Date Collected: 09/19/16 14:20

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.157	U	0.159	0.160	1.00	0.255	pCi/L	10/04/16 16:13	10/26/16 15:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					10/04/16 16:13	10/26/16 15:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0586	U	0.321	0.321	1.00	0.565	pCi/L	10/04/16 17:03	10/25/16 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					10/04/16 17:03	10/25/16 14:16	1
Y Carrier	87.9		40 - 110					10/04/16 17:03	10/25/16 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	0.216	U	0.358	0.359	5.00	0.565	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24071 MW-2

Lab Sample ID: 400-127851-2

Date Collected: 09/19/16 15:50

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0245	U	0.108	0.108	1.00	0.203	pCi/L	10/04/16 16:13	10/26/16 15:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/04/16 16:13	10/26/16 15:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0233	U	0.247	0.247	1.00	0.441	pCi/L	10/04/16 17:03	10/25/16 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/04/16 17:03	10/25/16 14:16	1
Y Carrier	91.6		40 - 110					10/04/16 17:03	10/25/16 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	0.0478	U	0.270	0.270	5.00	0.441	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24072 FB-1

Lab Sample ID: 400-127851-3

Date Collected: 09/19/16 16:10

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.114	U	0.164	0.164	1.00	0.276	pCi/L	10/04/16 16:13	10/26/16 15:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/04/16 16:13	10/26/16 15:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.176	U	0.300	0.300	1.00	0.507	pCi/L	10/04/16 17:03	10/25/16 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					10/04/16 17:03	10/25/16 14:16	1
Y Carrier	93.1		40 - 110					10/04/16 17:03	10/25/16 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	0.290	U	0.341	0.342	5.00	0.507	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24073 MW-11

Lab Sample ID: 400-127851-4

Date Collected: 09/21/16 09:35

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.253		0.150	0.152	1.00	0.206	pCi/L	10/04/16 16:13	10/26/16 15:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 16:13	10/26/16 15:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.441	U	0.309	0.312	1.00	0.481	pCi/L	10/04/16 17:03	10/25/16 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 17:03	10/25/16 14:16	1
Y Carrier	92.0		40 - 110					10/04/16 17:03	10/25/16 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	0.694		0.344	0.347	5.00	0.481	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24074 MW-18

Lab Sample ID: 400-127851-5

Date Collected: 09/21/16 11:05

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.318		0.147	0.150	1.00	0.180	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.483		0.309	0.312	1.00	0.477	pCi/L	10/04/16 19:18	10/24/16 13:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					10/04/16 19:18	10/24/16 13:54	1
Y Carrier	89.7		40 - 110					10/04/16 19:18	10/24/16 13:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.801		0.342	0.346	5.00	0.477	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24075 MW-6D

Lab Sample ID: 400-127851-6

Date Collected: 09/20/16 10:08

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.650		0.183	0.193	1.00	0.171	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.3		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.483		0.274	0.277	1.00	0.411	pCi/L	10/04/16 19:18	10/24/16 13:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.3		40 - 110					10/04/16 19:18	10/24/16 13:54	1
Y Carrier	90.8		40 - 110					10/04/16 19:18	10/24/16 13:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.13		0.330	0.338	5.00	0.411	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24076 MW-6S

Lab Sample ID: 400-127851-7

Date Collected: 09/20/16 11:26

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.664		0.184	0.194	1.00	0.167	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.633		0.312	0.318	1.00	0.456	pCi/L	10/04/16 19:18	10/24/16 13:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.0		40 - 110					10/04/16 19:18	10/24/16 13:54	1
Y Carrier	83.7		40 - 110					10/04/16 19:18	10/24/16 13:54	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.30		0.363	0.372	5.00	0.456	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24077 MW-7

Lab Sample ID: 400-127851-8

Date Collected: 09/21/16 11:03

Matrix: Water

Date Received: 09/29/16 10:05

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		0.131	0.133	1.00	0.169	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.129	U	0.305	0.305	1.00	0.568	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	86.0		40 - 110					10/04/16 19:18	10/24/16 14:19	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	0.107	U	0.332	0.333	5.00	0.568	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24078 MW-7 DISS

Lab Sample ID: 400-127851-9

Date Collected: 09/21/16 11:11

Matrix: Water

Date Received: 09/29/16 10:05

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145	U	0.117	0.118	1.00	0.175	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.43		0.365	0.388	1.00	0.433	pCi/L	10/04/16 19:18	10/24/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 19:18	10/24/16 13:59	1
Y Carrier	86.0		40 - 110					10/04/16 19:18	10/24/16 13:59	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.575		0.383	0.406	5.00	0.433	pCi/L		10/28/16 09:17	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24079 MW-8

Lab Sample ID: 400-127851-10

Date Collected: 09/21/16 14:17

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.274		0.156	0.158	1.00	0.217	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.561		0.291	0.296	1.00	0.425	pCi/L	10/04/16 19:18	10/24/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/04/16 19:18	10/24/16 13:59	1
Y Carrier	88.6		40 - 110					10/04/16 19:18	10/24/16 13:59	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	0.835		0.331	0.335	5.00	0.425	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24080 MW-16D

Lab Sample ID: 400-127851-11

Date Collected: 09/19/16 14:25

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.224		0.139	0.140	1.00	0.196	pCi/L	10/04/16 15:41	10/26/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 15:41	10/26/16 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.211	U	0.273	0.274	1.00	0.454	pCi/L	10/04/16 19:18	10/24/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 19:18	10/24/16 13:59	1
Y Carrier	84.1		40 - 110					10/04/16 19:18	10/24/16 13:59	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	0.435	U	0.306	0.308	5.00	0.454	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24081 MW-14

Lab Sample ID: 400-127851-12

Date Collected: 09/19/16 17:12

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144	U	0.145	0.146	1.00	0.233	pCi/L	10/04/16 15:41	10/26/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					10/04/16 15:41	10/26/16 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.400	U	0.308	0.310	1.00	0.487	pCi/L	10/04/16 19:18	10/24/16 13:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					10/04/16 19:18	10/24/16 13:59	1
Y Carrier	84.9		40 - 110					10/04/16 19:18	10/24/16 13:59	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	0.543		0.341	0.343	5.00	0.487	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24082 MW-15

Lab Sample ID: 400-127851-13

Date Collected: 09/20/16 12:30

Matrix: Water

Date Received: 09/29/16 10:05

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		0.138	0.140	1.00	0.172	pCi/L	10/04/16 15:41	10/26/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/04/16 15:41	10/26/16 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.920		0.426	0.435	1.00	0.634	pCi/L	10/04/16 19:18	10/24/16 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					10/04/16 19:18	10/24/16 14:20	1
Y Carrier	87.1		40 - 110					10/04/16 19:18	10/24/16 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.20		0.448	0.457	5.00	0.634	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24083 MW-13

Lab Sample ID: 400-127851-14

Date Collected: 09/20/16 14:10

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.302		0.165	0.167	1.00	0.228	pCi/L	10/04/16 15:41	10/26/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					10/04/16 15:41	10/26/16 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.423	U	0.351	0.353	1.00	0.560	pCi/L	10/04/16 19:18	10/24/16 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					10/04/16 19:18	10/24/16 14:20	1
Y Carrier	88.2		40 - 110					10/04/16 19:18	10/24/16 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.725		0.388	0.391	5.00	0.560	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24084 MW-13 DUP

Lab Sample ID: 400-127851-15

Date Collected: 09/20/16 14:10

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0387	U	0.106	0.106	1.00	0.192	pCi/L	10/04/16 15:41	10/26/16 06:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					10/04/16 15:41	10/26/16 06:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.262	U	0.324	0.325	1.00	0.537	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	86.7		40 - 110					10/04/16 19:18	10/24/16 14:19	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	0.301	U	0.341	0.342	5.00	0.537	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24085 FB-2

Lab Sample ID: 400-127851-16

Date Collected: 09/20/16 14:28

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0151	U	0.0999	0.0999	1.00	0.191	pCi/L	10/04/16 15:41	10/26/16 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					10/04/16 15:41	10/26/16 06:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.114	U	0.365	0.365	1.00	0.629	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	88.6		40 - 110					10/04/16 19:18	10/24/16 14:19	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	0.129	U	0.378	0.378	5.00	0.629	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24086 MW-12

Lab Sample ID: 400-127851-17

Date Collected: 09/20/16 16:33

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.560		0.200	0.207	1.00	0.242	pCi/L	10/04/16 15:41	10/26/16 06:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					10/04/16 15:41	10/26/16 06:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.288	U	0.321	0.322	1.00	0.527	pCi/L	10/04/16 19:18	10/24/16 13:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		40 - 110					10/04/16 19:18	10/24/16 13:55	1
Y Carrier	87.5		40 - 110					10/04/16 19:18	10/24/16 13:55	1

Method: Ra226_Ra228 - Combined Radium-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		0.379	0.383	5.00	0.527	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24087 MW-21

Lab Sample ID: 400-127851-18

Date Collected: 09/21/16 10:40

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.444		0.165	0.170	1.00	0.183	pCi/L	10/04/16 15:41	10/26/16 06:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					10/04/16 15:41	10/26/16 06:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0883	U	0.323	0.323	1.00	0.561	pCi/L	10/04/16 19:18	10/24/16 13:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					10/04/16 19:18	10/24/16 13:55	1
Y Carrier	84.1		40 - 110					10/04/16 19:18	10/24/16 13:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.532	U	0.362	0.365	5.00	0.561	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24088 MW-19

Lab Sample ID: 400-127851-19

Date Collected: 09/21/16 12:25

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.298		0.157	0.159	1.00	0.213	pCi/L	10/04/16 15:41	10/26/16 06:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					10/04/16 15:41	10/26/16 06:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.49		0.429	0.451	1.00	0.553	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	83.4		40 - 110					10/04/16 19:18	10/24/16 14:19	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	1.79		0.457	0.478	5.00	0.553	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24089 MW-19 DUP

Lab Sample ID: 400-127851-20

Date Collected: 09/21/16 12:25

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.360		0.151	0.155	1.00	0.181	pCi/L	10/04/16 15:41	10/26/16 06:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					10/04/16 15:41	10/26/16 06:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.410	U	0.324	0.326	1.00	0.513	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.4		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	86.4		40 - 110					10/04/16 19:18	10/24/16 14:19	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	0.771		0.357	0.361	5.00	0.513	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24090 MW-9

Lab Sample ID: 400-127851-21

Date Collected: 09/21/16 14:48

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.223		0.128	0.129	1.00	0.173	pCi/L	10/04/16 15:41	10/26/16 06:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					10/04/16 15:41	10/26/16 06:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0810	U	0.317	0.317	1.00	0.551	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.3		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	89.7		40 - 110					10/04/16 19:18	10/24/16 14:19	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	0.304	U	0.342	0.343	5.00	0.551	pCi/L		10/27/16 02:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24091 EB-1

Lab Sample ID: 400-127851-22

Date Collected: 09/21/16 17:30

Matrix: Water

Date Received: 09/29/16 10:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00991	U	0.0891	0.0891	1.00	0.173	pCi/L	10/04/16 15:41	10/26/16 06:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					10/04/16 15:41	10/26/16 06:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.464	U	0.358	0.360	1.00	0.567	pCi/L	10/04/16 19:18	10/24/16 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					10/04/16 19:18	10/24/16 14:19	1
Y Carrier	85.2		40 - 110					10/04/16 19:18	10/24/16 14:19	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	0.474	U	0.369	0.371	5.00	0.567	pCi/L		10/27/16 02:28	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24070 MW-17

Lab Sample ID: 400-127851-1

Date Collected: 09/19/16 14:20

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273142	10/04/16 16:13	MCJ	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 15:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273144	10/04/16 17:03	MCJ	TAL SL
Total/NA	Analysis	9320		1	275933	10/25/16 14:16	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24071 MW-2

Lab Sample ID: 400-127851-2

Date Collected: 09/19/16 15:50

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273142	10/04/16 16:13	MCJ	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 15:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273144	10/04/16 17:03	MCJ	TAL SL
Total/NA	Analysis	9320		1	275933	10/25/16 14:16	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24072 FB-1

Lab Sample ID: 400-127851-3

Date Collected: 09/19/16 16:10

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273142	10/04/16 16:13	MCJ	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 15:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273144	10/04/16 17:03	MCJ	TAL SL
Total/NA	Analysis	9320		1	275933	10/25/16 14:16	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24073 MW-11

Lab Sample ID: 400-127851-4

Date Collected: 09/21/16 09:35

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273142	10/04/16 16:13	MCJ	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 15:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273144	10/04/16 17:03	MCJ	TAL SL
Total/NA	Analysis	9320		1	275933	10/25/16 14:16	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24074 MW-18

Lab Sample ID: 400-127851-5

Date Collected: 09/21/16 11:05

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276036	10/26/16 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275779	10/24/16 13:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24075 MW-6D

Lab Sample ID: 400-127851-6

Date Collected: 09/20/16 10:08

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276036	10/26/16 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275779	10/24/16 13:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24076 MW-6S

Lab Sample ID: 400-127851-7

Date Collected: 09/20/16 11:26

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276036	10/26/16 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275779	10/24/16 13:54	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24077 MW-7

Lab Sample ID: 400-127851-8

Date Collected: 09/21/16 11:03

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276036	10/26/16 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24078 MW-7 DISS

Lab Sample ID: 400-127851-9

Date Collected: 09/21/16 11:11

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Dissolved	Analysis	9315		1	276036	10/26/16 06:49	RTM	TAL SL
Dissolved	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Dissolved	Analysis	9320		1	275777	10/24/16 13:59	RTM	TAL SL
Dissolved	Analysis	Ra226_Ra228		1	276428	10/28/16 09:17	RTM	TAL SL

Client Sample ID: AW24079 MW-8

Lab Sample ID: 400-127851-10

Date Collected: 09/21/16 14:17

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276036	10/26/16 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275777	10/24/16 13:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24080 MW-16D

Lab Sample ID: 400-127851-11

Date Collected: 09/19/16 14:25

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276037	10/26/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275777	10/24/16 13:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24081 MW-14

Lab Sample ID: 400-127851-12

Date Collected: 09/19/16 17:12

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276037	10/26/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275777	10/24/16 13:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24082 MW-15

Lab Sample ID: 400-127851-13

Date Collected: 09/20/16 12:30

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276037	10/26/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24083 MW-13

Lab Sample ID: 400-127851-14

Date Collected: 09/20/16 14:10

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276037	10/26/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24084 MW-13 DUP

Lab Sample ID: 400-127851-15

Date Collected: 09/20/16 14:10

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276037	10/26/16 06:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24085 FB-2

Lab Sample ID: 400-127851-16

Date Collected: 09/20/16 14:28

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276037	10/26/16 06:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24086 MW-12

Lab Sample ID: 400-127851-17

Date Collected: 09/20/16 16:33

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 06:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275779	10/24/16 13:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24087 MW-21

Lab Sample ID: 400-127851-18

Date Collected: 09/21/16 10:40

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 06:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275779	10/24/16 13:55	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24088 MW-19

Lab Sample ID: 400-127851-19

Date Collected: 09/21/16 12:25

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 06:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24089 MW-19 DUP

Lab Sample ID: 400-127851-20

Date Collected: 09/21/16 12:25

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 06:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (2)

Client Sample ID: AW24090 MW-9

Lab Sample ID: 400-127851-21

Date Collected: 09/21/16 14:48

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 06:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	ALS	TAL SL

Client Sample ID: AW24091 EB-1

Lab Sample ID: 400-127851-22

Date Collected: 09/21/16 17:30

Matrix: Water

Date Received: 09/29/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			273139	10/04/16 15:41	KKA	TAL SL
Total/NA	Analysis	9315		1	276038	10/26/16 06:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			273146	10/04/16 19:18	KKA	TAL SL
Total/NA	Analysis	9320		1	275778	10/24/16 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	276132	10/27/16 02:28	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Rad

Prep Batch: 273139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127851-5	AW24074 MW-18	Total/NA	Water	PrecSep-21	
400-127851-6	AW24075 MW-6D	Total/NA	Water	PrecSep-21	
400-127851-7	AW24076 MW-6S	Total/NA	Water	PrecSep-21	
400-127851-8	AW24077 MW-7	Total/NA	Water	PrecSep-21	
400-127851-9	AW24078 MW-7 DISS	Dissolved	Water	PrecSep-21	
400-127851-10	AW24079 MW-8	Total/NA	Water	PrecSep-21	
400-127851-11	AW24080 MW-16D	Total/NA	Water	PrecSep-21	
400-127851-12	AW24081 MW-14	Total/NA	Water	PrecSep-21	
400-127851-13	AW24082 MW-15	Total/NA	Water	PrecSep-21	
400-127851-14	AW24083 MW-13	Total/NA	Water	PrecSep-21	
400-127851-15	AW24084 MW-13 DUP	Total/NA	Water	PrecSep-21	
400-127851-16	AW24085 FB-2	Total/NA	Water	PrecSep-21	
400-127851-17	AW24086 MW-12	Total/NA	Water	PrecSep-21	
400-127851-18	AW24087 MW-21	Total/NA	Water	PrecSep-21	
400-127851-19	AW24088 MW-19	Total/NA	Water	PrecSep-21	
400-127851-20	AW24089 MW-19 DUP	Total/NA	Water	PrecSep-21	
400-127851-21	AW24090 MW-9	Total/NA	Water	PrecSep-21	
400-127851-22	AW24091 EB-1	Total/NA	Water	PrecSep-21	
MB 160-273139/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-273139/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-127851-11 DU	AW24080 MW-16D	Total/NA	Water	PrecSep-21	

Prep Batch: 273142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127851-1	AW24070 MW-17	Total/NA	Water	PrecSep-21	
400-127851-2	AW24071 MW-2	Total/NA	Water	PrecSep-21	
400-127851-3	AW24072 FB-1	Total/NA	Water	PrecSep-21	
400-127851-4	AW24073 MW-11	Total/NA	Water	PrecSep-21	
MB 160-273142/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-273142/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
490-112703-F-4-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
490-112703-F-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 273144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127851-1	AW24070 MW-17	Total/NA	Water	PrecSep_0	
400-127851-2	AW24071 MW-2	Total/NA	Water	PrecSep_0	
400-127851-3	AW24072 FB-1	Total/NA	Water	PrecSep_0	
400-127851-4	AW24073 MW-11	Total/NA	Water	PrecSep_0	
MB 160-273144/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-273144/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
490-112703-F-4-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
490-112703-F-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 273146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127851-5	AW24074 MW-18	Total/NA	Water	PrecSep_0	
400-127851-6	AW24075 MW-6D	Total/NA	Water	PrecSep_0	
400-127851-7	AW24076 MW-6S	Total/NA	Water	PrecSep_0	
400-127851-8	AW24077 MW-7	Total/NA	Water	PrecSep_0	
400-127851-9	AW24078 MW-7 DISS	Dissolved	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (2)

Rad (Continued)

Prep Batch: 273146 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127851-10	AW24079 MW-8	Total/NA	Water	PrecSep_0	
400-127851-11	AW24080 MW-16D	Total/NA	Water	PrecSep_0	
400-127851-12	AW24081 MW-14	Total/NA	Water	PrecSep_0	
400-127851-13	AW24082 MW-15	Total/NA	Water	PrecSep_0	
400-127851-14	AW24083 MW-13	Total/NA	Water	PrecSep_0	
400-127851-15	AW24084 MW-13 DUP	Total/NA	Water	PrecSep_0	
400-127851-16	AW24085 FB-2	Total/NA	Water	PrecSep_0	
400-127851-17	AW24086 MW-12	Total/NA	Water	PrecSep_0	
400-127851-18	AW24087 MW-21	Total/NA	Water	PrecSep_0	
400-127851-19	AW24088 MW-19	Total/NA	Water	PrecSep_0	
400-127851-20	AW24089 MW-19 DUP	Total/NA	Water	PrecSep_0	
400-127851-21	AW24090 MW-9	Total/NA	Water	PrecSep_0	
400-127851-22	AW24091 EB-1	Total/NA	Water	PrecSep_0	
MB 160-273146/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-273146/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-127851-11 DU	AW24080 MW-16D	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-273139/1-A
Matrix: Water
Analysis Batch: 276036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 273139

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1776		0.115	0.116	1.00	0.158	pCi/L	10/04/16 15:41	10/26/16 06:49	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					10/04/16 15:41	10/26/16 06:49	1

Lab Sample ID: LCS 160-273139/2-A
Matrix: Water
Analysis Batch: 276036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273139

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	14.8	19.44		1.96	1.00	0.173	pCi/L	131	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	97.2		40 - 110						

Lab Sample ID: 400-127851-11 DU
Matrix: Water
Analysis Batch: 276037

Client Sample ID: AW24080 MW-16D
Prep Type: Total/NA
Prep Batch: 273139

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.224		0.2525		0.131	1.00	0.161	pCi/L	0.10	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	96.3		40 - 110							

Lab Sample ID: MB 160-273142/1-A
Matrix: Water
Analysis Batch: 276036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 273142

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1644	U	0.120	0.121	1.00	0.174	pCi/L	10/04/16 16:13	10/26/16 10:33	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					10/04/16 16:13	10/26/16 10:33	1

Lab Sample ID: LCS 160-273142/2-A
Matrix: Water
Analysis Batch: 276038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273142

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.70		1.52	1.00	0.172	pCi/L	132	68 - 137

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

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

Lab Sample ID: LCS 160-273142/2-A
Matrix: Water
Analysis Batch: 276038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273142

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

Lab Sample ID: 490-112703-F-4-A MS
Matrix: Water
Analysis Batch: 276037

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 273142

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.522		11.1	14.23		1.47	1.00	0.132	pCi/L	123	75 - 138

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.3		40 - 110

Lab Sample ID: 490-112703-F-4-B MSD
Matrix: Water
Analysis Batch: 276037

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 273142

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	0.522		11.1	13.90		1.45	1.00	0.171	pCi/L	120	75 - 138	0.11	1

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	86.0		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-273144/1-A
Matrix: Water
Analysis Batch: 275929

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 273144

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1250	U	0.274	0.274	1.00	0.501	pCi/L	10/04/16 17:03	10/25/16 13:56	1

	MB	MB	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.0		40 - 110
Y Carrier	86.7		40 - 110

	Prepared	Analyzed	Dil Fac
Ba Carrier	10/04/16 17:03	10/25/16 13:56	1
Y Carrier	10/04/16 17:03	10/25/16 13:56	1

Lab Sample ID: LCS 160-273144/2-A
Matrix: Water
Analysis Batch: 275929

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273144

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.4	17.15		1.82	1.00	0.430	pCi/L	119	56 - 140

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-273144/2-A
Matrix: Water
Analysis Batch: 275929

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273144

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.0		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 490-112703-F-4-C MS
Matrix: Water
Analysis Batch: 275933

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 273144

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	1.03		14.4	14.76		1.59	1.00	0.342	pCi/L	96	45 - 150		
Carrier	%Yield	Qualifier	Limits										
Ba Carrier	92.3		40 - 110										
Y Carrier	91.2		40 - 110										

Lab Sample ID: 490-112703-F-4-D MSD
Matrix: Water
Analysis Batch: 275933

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 273144

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
													RER	Limit
Radium-228	1.03		14.4	15.29		1.66	1.00	0.460	pCi/L	99	45 - 150	0.16	1	
Carrier	%Yield	Qualifier	Limits											
Ba Carrier	86.0		40 - 110											
Y Carrier	92.7		40 - 110											

Lab Sample ID: MB 160-273146/1-A
Matrix: Water
Analysis Batch: 275779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 273146

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared		Analyzed		Dil Fac
												Dil Fac
Radium-228	0.7215		0.337	0.343	1.00	0.494	pCi/L	10/04/16 19:18	10/24/16 13:54			1
Carrier	%Yield	Qualifier	Limits			Prepared	Analyzed	Dil Fac				
Ba Carrier	95.2		40 - 110			10/04/16 19:18	10/24/16 13:54	1				
Y Carrier	89.0		40 - 110			10/04/16 19:18	10/24/16 13:54	1				

Lab Sample ID: LCS 160-273146/2-A
Matrix: Water
Analysis Batch: 275779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273146

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	19.2	21.76		2.27	1.00	0.481	pCi/L	114	56 - 140	

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (2)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-273146/2-A
Matrix: Water
Analysis Batch: 275779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 273146

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.2		40 - 110
Y Carrier	87.9		40 - 110

Lab Sample ID: 400-127851-11 DU
Matrix: Water
Analysis Batch: 275777

Client Sample ID: AW24080 MW-16D
Prep Type: Total/NA
Prep Batch: 273146

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.211	U	0.3372	U	0.286	1.00	0.453	pCi/L	0.23	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	96.3		40 - 110
Y Carrier	85.6		40 - 110

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

Lab Sample ID: 400-127851-11 DU
Matrix: Water
Analysis Batch: 276132


Client Sample ID: AW24080 MW-16D
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	0.435	U	0.5897		0.315	5.00	0.453	pCi/L	0.25	

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 Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State/Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Gorgas Ash Pond (2)		Lab PM: Nick Pitts / Ben Rofschadl E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Lab No: 400-56525-24537.1 Page: 1 of 2 Job #: 400-127851		
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007143 SSO#:		Analysis Requested  400-127851 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 Other:		Preservation Codes: M- Hexane N- None O- AsNaO2 P- Na2OAS Q- Na2SO3 R- Na2SO4 S- H2SO4 T- TSP Dodecahydrate U- Acetone V- MCAA W- ph 4.5 X- EDTA Z- other (specify)		
Total Number of Containers:		Special Instructions (Note):		
Perform MS/MSD (Yes or No)		Field Filled Sample (Yes or No)		
9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc		MW-17 MW-2 FB-1 (Field Blank) MW-11 MW-18 MW-6D MW-6S MW-7 MW-7 Diss (Dissolved Sample) MW-8		
Sample Identification	Sample Date	Sample Time (G=grab)	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BR=brine, AS=air)
AW24070	9/19/16	1420	G	Water
AW24071	9/19/16	1550	G	Water
AW24072	9/19/16	1610	G	Water
AW24073	9/21/16	0935	G	Water
AW24074	9/21/16	1105	G	Water
AW24075	9/20/16	1008	G	Water
AW24076	9/20/16	1126	G	Water
AW24077	9/21/16	1103	G	Water
AW24078	9/21/16	1111	G	Water
AW24079	9/21/16	1417	G	Water
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				
Deliverable Requested: I, II, III, IV, Other (specify)				
Empty Kit Relinquished by:				
Relinquished by: Sarah Copeland Date: 09/28/2016, 0845				
Relinquished by:				
Relinquished by: Date/Time:				
Relinquished by:				
Relinquished by: Date/Time:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				
Cooler Temperature(s) °C and Other Remarks: 25.4°C, 25.0°C IR-6				



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		Lab P/N: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Sampler: Jason Rouss		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		Page: 2 of 2	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Job #: 400-127851	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Preservation Codes:	
City: Calera		PO #:		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 F - MeOH R - Na2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water K - EDTA L - EDA W - ph 4-5 Z - other (specify) Other:	
State, Zip: AL, 35040		WO #:		Total Number of Containers	
Phone: 205-664-6121(Tel)		Project #:		Special Instructions/Note:	
Email: sgcopela@southernco.com		Project Name:			
CCR: 40007143		SSOW#:			
Site: Gorgas Ash Pond (2)		Perform MS/MSD (Yes or No)			
		Rigid Filtered Sample (Yes or No)			
		Sample Date			
		Sample Time			
		Sample Type (C=Comp, G=grab)			
		Matrix (Water, Sewage, Stormwater, Other)			
		Preservation Code			
		AW24080		MW-16D	
		AW24081		MW-14	
		AW24082		MW-15	
		AW24083		MW-13	
		AW24084		MW-13 Dup (Sample Duplicate)	
		AW24085		FB-2 (Field Blank)	
		AW24086		MW-12	
		AW24087		MW-21	
		AW24088		MW-19	
		AW24089		MW-19 Dup (Sample Duplicate)	
		AW24090		MW-9	
		AW24091		EB-1 (Equipment Blank)	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date:		Special Instructions/QC Requirements:	
Relinquished by: Sarah Copeland		Date/Time: 09/29/2016; 0845		Method of Shipment:	
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i> Company	
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i> Company	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Received by: <i>[Signature]</i> Company	
Cooler Temperature(s) °C and Other Remarks:		25.4°C, 25.0°C		25.4°C, 25.0°C	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-127851-1
SDG Number: Gorgas Ash Pond (2)

Login Number: 127851

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	25.4°C, 25.0°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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
 SDG: Gorgas Ash Pond (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	06-30-16 *
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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-127851-1
SDG: Gorgas Ash Pond (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
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.



Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1053
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_1053

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW26912	580172	580176	580180	WMWGORAP_1053
AW26913	580172	580176	580180	WMWGORAP_1053
AW26914	580172	580176	580180	WMWGORAP_1053
AW26915	580172	580176	580180	WMWGORAP_1053
AW26916	580172	580176	580180	WMWGORAP_1053
AW26917	580172	580176	580180	WMWGORAP_1053
AW26918	580173	580177	580181	WMWGORAP_1053
AW26919	580173	580177	580181	WMWGORAP_1053
AW26957	580173	580177	580181	WMWGORAP_1053
AW26958	580173	580177	580181	WMWGORAP_1053
AW26959	580173	580177	580181	WMWGORAP_1053
AW26960	580173	580177	580181	WMWGORAP_1053
AW26961	580173	580177	580181	WMWGORAP_1053
AW26962	580173	580177	580181	WMWGORAP_1053
AW26963	580173	580177	580181	WMWGORAP_1053
AW26964	580173	580177	580181	WMWGORAP_1053
AW26965	580174	580178	580182	WMWGORAP_1053
AW26967	580174	580178	580182	WMWGORAP_1053
AW26968	580174	580178	580182	WMWGORAP_1053
AW26969	580174	580178	580182	WMWGORAP_1053
AW26970	580174	580178	580182	WMWGORAP_1053
AW26966	580184	580185	580186	WMWGORAP_1053

4. All of the above samples were analyzed and prepared by EPA 300.0.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exceptions:
 1. The blank for anion sulfate in batch 580180 presented a negative concentration above the RL of 1.0, at -1.611 mg/L. Two batch samples (AW26912 and AW26916) presented negative sulfate concentrations (-0.431 and -1.298) below 10x the absolute value of the sulfate blank, and should be considered as quantitatively estimated non-detect concentrations, with the potential for low bias on the reported RL value. One batch sample (AW26917) presented a positive concentration (10.08 mg/L) below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated concentration, with the potential for low bias on the reported result value.
 2. The blank for anion sulfate in batch 580181 presented a negative concentration greater than the RL of 1.0, at -1.609 mg/L, and the blank for anion fluoride in batch 580177 presented a negative concentration greater than the MDL value of 0.01 mg/L, at -0.051 mg/L. Two batch samples (AW26964 and AW26962) presented negative sulfate concentrations (-0.431 and -1.298) below 10x the absolute value of the sulfate blank, and should be considered as quantitatively estimated non-detect concentrations, with the potential for low bias on the reported RL value. Four batch samples (AW26918, AW26919, AW26960 and AW26961) presented positive sulfate concentrations below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated concentrations, with the potential for low bias on the reported result values. One batch sample (AW26962) presented a negative fluoride concentration (-0.050) below 10x the absolute value of the fluoride blank, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value. Seven batch samples (AW26918, AW26919, and AW26957 - AW26961, inclusive) presented positive fluoride concentrations below 10x the absolute value of the fluoride blank, and should be considered as a quantitatively estimated concentrations, with the potential for low bias on the reported result values.
 3. The blank for anion sulfate in batch 580182 presented a negative concentration greater than the RL of 1.0, at -1.526 mg/L, and the blank for anion fluoride in batch 580178 presented a negative concentration greater than the MDL value of 0.01 mg/L, at -0.051 mg/L. One batch sample (AW26970) presented a negative sulfate concentration (-1.605) below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value. One batch sample (AW26967) presented a positive sulfate concentration below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated concentration, with the potential for low bias on the reported result value. One batch sample (AW26965) presented a negative fluoride concentration (-0.002) below 10x the absolute value of the fluoride blank, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value. Three batch samples (AW26967, AW26968 and AW26969) presented positive fluoride concentrations below 10x the absolute value of the fluoride blank, and should be considered as a quantitatively estimated concentrations, with the potential for low bias on the reported result values.



4. The blank for anion sulfate in batch 580186 presented a negative concentration greater than the RL of 1.0, at -1.606 mg/L, and the blank for anion fluoride in batch 580185 presented a negative concentration greater than the MDL value of 0.01 mg/L, at -0.051 mg/L. No sulfate batch samples were below 10x the absolute value of the sulfate blank, and no qualification was necessary. One batch sample (AW26966) presented a negative fluoride concentration (-0.004) below 10x the absolute value of the fluoride blank, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value.
- All laboratory fortified blanks were within acceptance criteria for the anions requested, with the following exceptions:
 1. The closing LFB for anion fluoride in batch 580176 recovered below the lower limit of 90% (at 82%). All batch samples for fluoride (AW26912 – AW26917, inclusive) should be considered as quantitatively estimated concentrations, with indication of potential low bias on the reported result values.
 2. The opening LFB for anion fluoride in batch 580177 recovered below the lower limit of 90% (at 82%). All batch samples for fluoride (AW26918, AW26919 and AW26957 - AW26964, inclusive) should be considered as quantitatively estimated concentrations, with indication of potential low bias on the reported result values, or as quantitatively estimated non-detect concentrations, with the potential for low bias on the reported RL value, as applicable.
 3. The closing LFB for anion fluoride in batch 580178 recovered below the lower limit of 90% (at 89%). All batch samples for fluoride (AW26965, and AW26967 - AW26970, inclusive) should be considered as quantitatively estimated concentrations, with indication of potential low bias on the reported result values, or as quantitatively estimated non-detect concentrations, with the potential for low bias on the reported RL value, as applicable.
 4. No opening LFB was listed or run for chloride, fluoride or sulfate (in batches 580184, 580185, & 580186, respectively). The closing LFB for anion fluoride recovered below the lower limit of 90% (at 79%). The batch sample (AW26966) results for chloride and sulfate should be considered as quantitatively estimated concentrations, with indeterminate bias direction and magnitude, and the fluoride result for batch sample AW26966 should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value. No opening LFB for the dilution analysis for sulfate was listed or run; the reported sulfate dilution result should be considered as a quantitatively estimated concentration, with indeterminate bias direction and magnitude.



- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met. It is noted that the LFM for sulfate in batch 580182 was diluted prior to spiking, and the diluted LFM sample was spiked at 50x normal concentration, with acceptable recovery. It is noted that the LFM for sulfate in batch 580186 was diluted prior to spiking, and the diluted LFM sample was spiked at 10x normal concentration, with acceptable recovery.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. Sample AW26961 was re-analyzed for chloride at a 2X dilution, samples AW26913 and AW26914 were re-analyzed for chloride at a 10x dilution, and samples AW26913, AW26914, AW26959, AW26965, AW26968 and AW26966 were re-analyzed for sulfate at a 10x dilution, due to undiluted results exceeding the calibrated range of the detector. The dilution results for chloride and for sulfate for these samples should be used; reporting limit (RL) values are adjusted upward to reflect the dilution factor applied.

<u>Sample ID</u>		<u>Analyte</u>		<u>Dilution Factor</u>
AW26913		Chloride		10X
AW26913		Sulfate		10X
AW26914		Chloride		10X
AW26914		Sulfate		10X



AW26959		Sulfate		10X
AW26961		Chloride		2X
AW26965		Sulfate		10X
AW26968		Sulfate		10X
AW26966		Sulfate		10X

8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1053

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26912	20161115C	WMWGORAP_1053
AW26913	20161115C	WMWGORAP_1053
AW26914	20161115C	WMWGORAP_1053
AW26915	20161115C	WMWGORAP_1053
AW26916	20161115C	WMWGORAP_1053
AW26917	20161115C	WMWGORAP_1053
AW26918	20161115C	WMWGORAP_1053
AW26919	20161115C	WMWGORAP_1053
AW26957	20161115C	WMWGORAP_1053
AW26958	20161115D_20161116	WMWGORAP_1053
AW26959	20161115D_20161116	WMWGORAP_1053
AW26960	20161115D_20161116	WMWGORAP_1053
AW26961	20161115D_20161116	WMWGORAP_1053
AW26962	20161115D_20161116	WMWGORAP_1053
AW26963	20161115D_20161116	WMWGORAP_1053
AW26964	20161115D_20161116	WMWGORAP_1053
AW26965	20161115D_20161116	WMWGORAP_1053
AW26967	20161115D_20161116	WMWGORAP_1053
AW26968	20161115D_20161116	WMWGORAP_1053
AW26969	20161121B_20161228D_20170119C	WMWGORAP_1053
AW26970	20161121B_20161228D_20170119C	WMWGORAP_1053
AW26966	20161121	WMWGORAP_1053

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes, with the following exception: batch 20161228D CCV failed for Li. Samples were re-prepared and re-analyzed with passing QC.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 20161121, which is a dissolved sample, therefore does not get digested.
- All laboratory control sample criteria were met, with the following exceptions: LCS for Boron and Lithium for batch 20161121B failed. Samples were re-prepared and re-analyzed in batch 20161228D. All QC for Boron passed and results were reported. Lithium CCV failed and all samples were re-prepared and re-analyzed a second time in batch 20170119C. All QC for Lithium passed and results were reported.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met with the following exceptions:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	AW26968

The concentration of this analyte in the matrix spike was less than 30 percent of the concentration of the sample, causing inaccurate spike recovery information. The laboratory control sample indicates that the digestion and analysis were in control.



- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve. The undiluted dilution factor was 1.0X. The following samples were diluted 1: 10 by adding 9mL of water to 1mL of the undiluted digested sample for a total volume of 10 mL. This gave a dilution factor of 10X. All samples in batch 20170119C (AW26969 & AW26970) were diluted at a 5X for Lithium to compensate for any matrix effects.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW26913	Calcium	10X
AW26914	Calcium	10X
AW26917	Calcium	10X
AW26957	Calcium	10X
AW26957MS	Calcium	10X
AW26957MSD	Calcium	10X
AW26958	Calcium	10X
AW26959	Calcium	10X
AW26968	Calcium	10X
AW26968MS	Calcium	10X
AW26968MSD	Calcium	10X
AW26969	Calcium	10X

8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1053

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26912	581116	WMWGORAP_1053
AW26913	581116	WMWGORAP_1053
AW26914	581116	WMWGORAP_1053
AW26915	581116	WMWGORAP_1053
AW26916	581116	WMWGORAP_1053
AW26917	581116	WMWGORAP_1053
AW26918	581116	WMWGORAP_1053
AW26919	581116	WMWGORAP_1053
AW26957	581116	WMWGORAP_1053
AW26958	581353	WMWGORAP_1053
AW26959	581353	WMWGORAP_1053
AW26960	581353	WMWGORAP_1053
AW26961	581353	WMWGORAP_1053
AW26962	581353	WMWGORAP_1053
AW26963	581353	WMWGORAP_1053
AW26964	581353	WMWGORAP_1053
AW26965	581353	WMWGORAP_1053
AW26967	581353	WMWGORAP_1053
AW26968	581365	WMWGORAP_1053
AW26969	581365	WMWGORAP_1053
AW26970	581365	WMWGORAP_1053
AW26966	580876	WMWGORAP_1053

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 580876, which is a dissolved sample and does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met except for sample AW26957, selenium recovery was low. Sample was re-prepped and reanalyzed, with passing QC, indicating a lack of matrix effect on the sample. Results were reported from original batch 581116.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1053

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW26966	580283	WMWGORAP_1053
AW26912	580908	WMWGORAP_1053
AW26913	580908	WMWGORAP_1053
AW26914	580908	WMWGORAP_1053
AW26915	580908	WMWGORAP_1053
AW26916	580908	WMWGORAP_1053
AW26917	580908	WMWGORAP_1053
AW26918	580908	WMWGORAP_1053
AW26919	581464	WMWGORAP_1053
AW26957	581464	WMWGORAP_1053
AW26958	581464	WMWGORAP_1053
AW26959	581464	WMWGORAP_1053
AW26960	581464	WMWGORAP_1053
AW26961	581464	WMWGORAP_1053
AW26962	581464	WMWGORAP_1053
AW26963	581464	WMWGORAP_1053
AW26964	581464	WMWGORAP_1053
AW26965	581464	WMWGORAP_1053
AW26967	581465	WMWGORAP_1053
AW26968	581465	WMWGORAP_1053
AW26969	581465	WMWGORAP_1053
AW26970	581465	WMWGORAP_1053

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory, with the exception of a CCV in batch 580283. The CCV had a drop in response signal during the read time, only AW26966 was affected.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1053

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW26912	580162	WMWGORAP_1053
AW26913	580162	WMWGORAP_1053
AW26914	580162	WMWGORAP_1053
AW26915	580162	WMWGORAP_1053
AW26916	580162	WMWGORAP_1053
AW26917	580162	WMWGORAP_1053
AW26918	580162	WMWGORAP_1053
AW26919	580162	WMWGORAP_1053
AW26957	580162	WMWGORAP_1053
AW26958	580162	WMWGORAP_1053
AW26959	580169	WMWGORAP_1053
AW26960	580169	WMWGORAP_1053
AW26961	580169	WMWGORAP_1053
AW26962	580169	WMWGORAP_1053
AW26963	580169	WMWGORAP_1053
AW26964	580169	WMWGORAP_1053
AW26965	580169	WMWGORAP_1053
AW26967	580169	WMWGORAP_1053
AW26968	580169	WMWGORAP_1053
AW26969	580169	WMWGORAP_1053
AW26970	580170	WMWGORAP_1053

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative

 Alabama Power



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW26962, AW26964, and AW26970 which are <2.5.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW26912

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0787	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	J 0.0986	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	0.635	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0488	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	395	mg/L
* Chloride, Total	SES	10/27/2016	EPA 300.0		1	0.04	0.25	5.93	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	1.29	mg/L
* Sulfate, Total	SES	10/27/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW26912

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW26912

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26917	Sulfate, Total	mg/L	-1.61	1.0	20.00	29.2	10.1	18.2	18 to 22	95.5	80 to 120	0.00	20
AW26917	Chloride, Total	mg/L	0.00	0.25	10.00	12.9	2.96	9.87	9 to 11	99.6	80 to 120	0.678	20
AW26917	Fluoride, Total	mg/L	0.00	0.3	2.00	1.69	0.052		1.8 to 2.2	81.6	80 to 120	10.9	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW26913

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	0.0597	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0999	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	1.60	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		10	1.0	5.0	166	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.293	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0517	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		100	1100	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		10	0.40	2.50	27.9	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	J 0.141	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		10	3.0	10	608	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW26913

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW26913

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26917	Chloride, Total	mg/L	0.00	0.25	10.00	12.9	2.96	9.87	9 to 11	99.6	80 to 120	0.678	20
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26917	Sulfate, Total	mg/L	-1.61	1.0	20.00	29.2	10.1	18.2	18 to 22	95.5	80 to 120	0.00	20
AW26917	Fluoride, Total	mg/L	0.00	0.3	2.00	1.69	0.052		1.8 to 2.2	81.6	80 to 120	10.9	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-18 Dup

Laboratory ID Number: AW26914

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	0.0602	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.101	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	1.61	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		10	1.0	5.0	162	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.295	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0509	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		100	1080	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		10	0.40	2.50	27.7	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	J 0.150	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		10	3.0	10	608	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-18 Dup

Laboratory ID Number: AW26914

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-18 Dup

Laboratory ID Number: AW26914

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26917	Chloride, Total	mg/L	0.00	0.25	10.00	12.9		2.96	9.87	9 to 11	99.6	80 to 120	0.678	20
AW26919	Solids, Dissolved	mg/L	4.00	25				219	56.0	40 to 60			0.905	5
AW26917	Fluoride, Total	mg/L	0.00	0.3	2.00	1.69		0.052		1.8 to 2.2	81.6	80 to 120	10.9	20
AW26917	Sulfate, Total	mg/L	-1.61	1.0	20.00	29.2		10.1	18.2	18 to 22	95.5	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW26915

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.311	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	J 0.0444	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	34.7	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0247	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0198	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	275	mg/L
* Chloride, Total	SES	10/27/2016	EPA 300.0		1	0.04	0.25	8.77	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	J 0.240	mg/L
* Sulfate, Total	SES	10/27/2016	EPA 300.0		1	0.3	1	18.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW26915

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW26915

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26917	Chloride, Total	mg/L	0.00	0.25	10.00	12.9	2.96	9.87	9 to 11	99.6	80 to 120	0.678	20
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26917	Sulfate, Total	mg/L	-1.61	1.0	20.00	29.2	10.1	18.2	18 to 22	95.5	80 to 120	0.00	20
AW26917	Fluoride, Total	mg/L	0.00	0.3	2.00	1.69	0.052		1.8 to 2.2	81.6	80 to 120	10.9	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW26916

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	0.0728	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.109	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	0.323	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	26.1	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0217	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	J 0.00456	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	518	mg/L
* Chloride, Total	SES	10/27/2016	EPA 300.0		1	0.04	0.25	12.2	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	0.588	mg/L
* Sulfate, Total	SES	10/27/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW26916

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW26916

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26917	Chloride, Total	mg/L	0.00	0.25	10.00	12.9	2.96	9.87	9 to 11	99.6	80 to 120	0.678	20
AW26917	Fluoride, Total	mg/L	0.00	0.3	2.00	1.69	0.052		1.8 to 2.2	81.6	80 to 120	10.9	20
AW26917	Sulfate, Total	mg/L	-1.61	1.0	20.00	29.2	10.1	18.2	18 to 22	95.5	80 to 120	0.00	20
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW26917

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.176	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		10	1.0	5.0	46.6	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0114	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	226	mg/L
* Chloride, Total	SES	10/27/2016	EPA 300.0		1	0.04	0.25	2.94	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	J 0.058	mg/L
* Sulfate, Total	SES	10/27/2016	EPA 300.0		1	0.3	1	10.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW26917

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW26917

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26917	Chloride, Total	mg/L	0.00	0.25	10.00	12.9	2.96	9.87	9 to 11	99.6	80 to 120	0.678	20
AW26917	Fluoride, Total	mg/L	0.00	0.3	2.00	1.69	0.052		1.8 to 2.2	81.6	80 to 120	10.9	20
AW26917	Sulfate, Total	mg/L	-1.61	1.0	20.00	29.2	10.1	18.2	18 to 22	95.5	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW26918

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	J 0.00199	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.252	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	35.8	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/7/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0321	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	219	mg/L
* Chloride, Total	SES	10/27/2016	EPA 300.0		1	0.04	0.25	5.08	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	J 0.040	mg/L
* Sulfate, Total	SES	10/27/2016	EPA 300.0		1	0.3	1	8.12	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW26918

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26918 Mercury, Total by CVAA	mg/L	0.0000459	0.0005	0.004	0.00399	0.00391	0.00392	0.0034 to 0.0046	99.8	70 to 130	2.13	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW26918

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW26919

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.300	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	J 0.0273	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	32.2	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0353	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	223	mg/L
* Chloride, Total	SES	10/27/2016	EPA 300.0		1	0.04	0.25	2.53	mg/L
* Fluoride, Total	SES	10/27/2016	EPA 300.0		1	0.01	0.3	J 0.018	mg/L
* Sulfate, Total	SES	10/27/2016	EPA 300.0		1	0.3	1	11.6	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW26919

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26957 Barium, Total	mg/L	0.00000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20	
AW26957 Lithium, Total	mg/L	0.00000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20	
AW26957 Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20	
AW26957 Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20	
AW26957 Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20	
AW26957 Thallium, Total	mg/L	0.00000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20	
AW26957 Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20	
AW26957 Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20	
AW26957 Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20	
AW26957 Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20	
AW26957 Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20	
AW26957 Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20	
AW26957 Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20	
AW26957 Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW26919

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90		0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26919	Solids, Dissolved	mg/L	4.00	25				219	56.0	40 to 60			0.905	5
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78		0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7		-1.61	19.1	18 to 22	93.5	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW26957

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	0.0695	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.711	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	1.08	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		10	1.0	5.0	49.5	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.243	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	J 0.00496	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	306	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	5.40	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.019	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	57.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Recovery for Selenium was out of spec.
 The sample was re-prepared and re-analyzed with passing results, indicating lack of a matrix effect.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW26957

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AW26957	Lithium, Total	mg/L	0.0000224	0.022	0.20	0.451	0.452	0.200	0.17 to 0.23	104	70 to 130	0.221	20
AW26957	Calcium, Total	mg/L	-0.0631	0.22	5.00	55.3	55.5	4.83	4.25 to 5.75	116	70 to 130	0.361	20
AW26957	Barium, Total	mg/L	0.0000542	0.0044	0.10	0.791	0.804	0.0964	0.085 to 0.115	80.4	70 to 130	1.62	20
AW26957	Lead, Total	mg/L	0.00000815	0.0022	0.10	0.0957	0.0970	0.103	0.085 to 0.115	95.7	70 to 130	1.33	20
AW26957	Selenium, Total	mg/L	0.0000284	0.0044	0.10	0.0566	0.0565	0.100	0.085 to 0.115	56.6	70 to 130	0.177	20
AW26957	Thallium, Total	mg/L	0.0000566	0.00044	0.10	0.0946	0.0962	0.102	0.085 to 0.115	94.6	70 to 130	1.70	20
AW26957	Antimony, Total	mg/L	0.0000812	0.00132	0.10	0.0913	0.0920	0.0855	0.085 to 0.115	91.3	70 to 130	0.843	20
AW26957	Beryllium, Total	mg/L	0.00000499	0.00132	0.10	0.109	0.111	0.109	0.085 to 0.115	109	70 to 130	1.82	20
AW26965	Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20
AW26957	Arsenic, Total	mg/L	0.0000160	0.0022	0.10	0.168	0.169	0.103	0.085 to 0.115	98.1	70 to 130	0.626	20
AW26957	Boron, Total	mg/L	-0.0000619	0.044	1.00	2.04	2.05	0.952	0.85 to 1.15	95.9	70 to 130	0.489	20
AW26957	Cadmium, Total	mg/L	0.00000836	0.00044	0.10	0.0964	0.0960	0.0975	0.085 to 0.115	96.4	70 to 130	0.409	20
AW26957	Chromium, Total	mg/L	0.0000129	0.0044	0.10	0.0974	0.0986	0.106	0.085 to 0.115	97.4	70 to 130	1.17	20
AW26957	Cobalt, Total	mg/L	0.00000376	0.0044	0.10	0.0985	0.0994	0.105	0.085 to 0.115	98.5	70 to 130	0.886	20
AW26957	Molybdenum, Total	mg/L	0.0000300	0.0044	0.10	0.105	0.107	0.0931	0.085 to 0.115	100	70 to 130	1.70	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Recovery for Selenium was out of spec.
 The sample was re-prepared and re-analyzed with passing results, indicating lack of a matrix effect.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW26957

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Recovery for Selenium was out of spec.
 The sample was re-prepared and re-analyzed with passing results, indicating lack of a matrix effect.

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6D Dup

Laboratory ID Number: AW26958

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.0688	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.717	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	1.09	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		10	1.0	5.0	54.5	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.243	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00489	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/27/2016	SM 2540C		1		25	305	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	5.38	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.019	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	57.3	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6D Dup

Laboratory ID Number: AW26958

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6D Dup

Laboratory ID Number: AW26958

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26919	Solids, Dissolved	mg/L	4.00	25			219	56.0	40 to 60			0.905	5
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 26-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW26959

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.0115	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.230	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	1.24	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		10	1.0	5.0	65.6	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0199	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00599	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		50	456	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	20.7	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.032	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		10	3.0	10	224	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 26-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW26959

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 26-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW26959

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec			
			Limit	Limit			Duplicate	LFB	Limit	Limit			
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60		0.659	5	
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW26960

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00122	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0468	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	J 0.0858	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	4.02	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	J 0.0462	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00819	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		50	424	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	7.29	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.086	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	8.58	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW26960

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AW26967	Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20
AW26967	Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20
AW26968	Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20
AW26967	Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20
AW26967	Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20
AW26965	Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20
AW26968	Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20
AW26967	Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20
AW26967	Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20
AW26967	Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20
AW26967	Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20
AW26967	Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20
AW26967	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20
AW26967	Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20
AW26968	Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW26960

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW26961

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00214	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0489	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	J 0.0867	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	4.92	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00204	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.171	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0326	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		50	348	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		2	0.08	0.50	26.0	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.137	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	8.54	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW26961

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW26961

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90		0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26969	Solids, Dissolved	mg/L	-3.0	25				226	41.0	40 to 60			0.659	5
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7		-1.61	19.1	18 to 22	93.5	80 to 120	0	20
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78		0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW26962

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW26962

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW26962

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec Rec	Rec Limit	Prec	Prec Limit
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW26963

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.0109	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.222	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	J 0.0849	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	14.7	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.152	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0630	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		50	394	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	7.96	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	0.544	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	49.8	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW26963

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115		98.4	70 to 130		3.24	20
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115		91.7	70 to 130		3.94	20
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115		88.2	70 to 130		3.86	20
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75		28.0	70 to 130		0.846	20
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046		93.4	70 to 130		2.74	20
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23		104	70 to 130		2.05	20
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115		87.1	70 to 130		4.33	20
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15		95.5	70 to 130		1.77	20
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115		91.7	70 to 130		2.63	20
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115		88.3	70 to 130		5.04	20
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115		98.8	70 to 130		1.27	20
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115		90.1	70 to 130		3.36	20
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115		85.3	70 to 130		4.57	20
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115		91.8	70 to 130		2.53	20
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115		92.2	70 to 130		3.72	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW26963

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90		0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78		0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7		-1.61	19.1	18 to 22	93.5	80 to 120	0	20
AW26969	Solids, Dissolved	mg/L	-3.0	25				226	41.0	40 to 60				0.659 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report
 Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW26964

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW26964

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW26964

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26964	Chloride, Total	mg/L	0.00	0.25	10.00	9.90	0.00	9.85	9 to 11	99.0	80 to 120	0	20
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW26964	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.78	0.00	1.84	1.8 to 2.2	89.0	80 to 120	0	20
AW26964	Sulfate, Total	mg/L	-1.61	1.0	20.00	18.7	-1.61	19.1	18 to 22	93.5	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW26965

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.151	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0751	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	1.42	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	14.8	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00216	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.135	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.136	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	370	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	3.75	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		10	3.0	10	131	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW26965

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	
AW26965 Mercury, Total by CVAA	mg/L	0.0000844	0.0005	0.004	0.00374	0.00384	0.00382	0.0034 to 0.0046	93.4	70 to 130	2.74	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW26965

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW27035	Sulfate, Total	mg/L	-1.53	1.0	1000	2500	1340	20.2	18 to 22	117	80 to 120	0.749	20
AW27035	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.69	0.047		1.8 to 2.2	82.0	80 to 120	6.19	20
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW27035	Chloride, Total	mg/L	0.00	0.25	10.00	12.2	2.33	9.80	9 to 11	98.6	80 to 120	0.428	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-7 Dissolved

Laboratory ID Number: AW26966

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0010	0.005	0.170	mg/L
* Barium, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0020	0.010	0.0468	mg/L
* Beryllium, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Dissolved	HRG	11/21/2016	EPA 200.7		1	0.02	0.1	1.43	mg/L
* Calcium, Dissolved	HRG	11/21/2016	EPA 200.7		1	0.1	0.5	14.5	mg/L
* Cadmium, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	11/21/2016	EPA 200.7		1	0.01	0.05	0.135	mg/L
* Molybdenum, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0020	0.010	0.140	mg/L
* Lead, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.0020	0.010	J 0.00420	mg/L
* Thallium, Dissolved	JHK	11/7/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Chloride, Dissolved	SES	10/28/2016	EPA 300.0		1	0.04	0.25	3.77	mg/L
Fluoride, Dissolved	SES	10/28/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
Sulfate, Dissolved	SES	10/31/2016	EPA 300.0		10	3.0	10	133	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-7 Dissolved

Laboratory ID Number: AW26966

Sample	Analysis	Units	MB				LFB		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	LFB	Limit	Rec			Limit
AW26966	Cobalt, Dissolved	mg/L	0.0000112	0.0044	0.100	0.0937	0.0935			93.7	70 to 130	0.214	20
AW26966	Lithium, Dissolved	mg/L	0.000310	0.022	0.20	0.348	0.350	0.190	0.17 to 0.23	107	70 to 130	0.573	20
AW26966	Boron, Dissolved	mg/L	0.00169	0.044	1.00	2.44	2.44	0.935	0.85 to 1.15	101	70 to 130	0.00	20
AW26966	Arsenic, Dissolved	mg/L	0.0000296	0.0022	0.100	0.267	0.268			97.0	70 to 130	0.374	20
AW26966	Calcium, Dissolved	mg/L	-0.0895	0.22	5.00	19.4	19.4	4.40	4.25 to 5.75	97.3	70 to 130	0.00	20
AW26966	Selenium, Dissolved	mg/L	0.0000323	0.0044	0.100	0.101	0.101			96.8	70 to 130	0.00	20
AW26966	Barium, Dissolved	mg/L	0.0000114	0.0044	0.100	0.144	0.144			97.2	70 to 130	0.00	20
AW26966	Cadmium, Dissolved	mg/L	0.00000802	0.00044	0.100	0.102	0.101			102	70 to 130	0.985	20
AW26966	Chromium, Dissolved	mg/L	0.0000153	0.0044	0.100	0.0937	0.0944			93.7	70 to 130	0.744	20
AW26966	Beryllium, Dissolved	mg/L	0.0000633	0.00132	0.100	0.0978	0.0990			97.8	70 to 130	1.22	20
AW26966	Lead, Dissolved	mg/L	0.0000663	0.0022	0.100	0.107	0.107			107	70 to 130	0.00	20
AW26966	Thallium, Dissolved	mg/L	0.00000816	0.00044	0.10	0.0986	0.0985			98.6	70 to 130	0.114	20
AW26966	Antimony, Dissolved	mg/L	0.0000606	0.00132	0.100	0.0933	0.0925			93.3	70 to 130	0.861	20
AW26966	Mercury, Dissolved by CVAA	mg/L	0.0000854	0.0005	0.004	0.00351	0.00376	0.00396	0.0034 to 0.0046	87.9	70 to 130	6.82	20
AW26966	Molybdenum, Dissolved	mg/L	0.0000315	0.0044	0.100	0.234	0.233			94.0	70 to 130	0.428	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 24-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-7 Dissolved

Laboratory ID Number: AW26966

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26966	Sulfate, Dissolved	mg/L	-1.61	1.0	200	336	135	18.0	18 to 22	102	80 to 120	1.49	20
AW26966	Chloride, Dissolved	mg/L	0.000	0.25	10.00	13.9	3.76	9.83	9 to 11	101	80 to 120	0.346	20
AW26966	Fluoride, Dissolved	mg/L	-0.051	0.3	2.00	1.72	0.001		1.8 to 2.2	86.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW26967

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0576	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/15/2016	EPA 200.7		1	0.1	0.5	10.8	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00305	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	121	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	3.03	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.025	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	2.78	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW26967

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26967 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0984	0.0953	0.103	0.085 to 0.115	98.4	70 to 130	3.24	20	
AW26967 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0917	0.0954	0.1000	0.085 to 0.115	91.7	70 to 130	3.94	20	
AW26967 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0882	0.0917	0.0917	0.085 to 0.115	88.2	70 to 130	3.86	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW26967 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0902	0.0942	0.0944	0.085 to 0.115	87.1	70 to 130	4.33	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW26967 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0901	0.0932	0.0975	0.085 to 0.115	90.1	70 to 130	3.36	20	
AW26967 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0853	0.0893	0.0920	0.085 to 0.115	85.3	70 to 130	4.57	20	
AW26967 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0917	0.0941	0.0927	0.085 to 0.115	91.7	70 to 130	2.63	20	
AW26967 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.146	0.153	0.0954	0.085 to 0.115	88.3	70 to 130	5.04	20	
AW26967 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0988	0.0976	0.101	0.085 to 0.115	98.8	70 to 130	1.27	20	
AW26967 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0918	0.0895	0.0981	0.085 to 0.115	91.8	70 to 130	2.53	20	
AW26967 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0922	0.0889	0.0994	0.085 to 0.115	92.2	70 to 130	3.72	20	
AW27036 Mercury, Total by CVAA	mg/L	0.000130	0.0005	0.004	0.00388	0.00388	0.00401	0.0034 to 0.0046	97.0	70 to 130	0.0361	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW26967

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW27035	Sulfate, Total	mg/L	-1.53	1.0	1000	2500	1340	20.2	18 to 22	117	80 to 120	0.749	20
AW27035	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.69	0.047		1.8 to 2.2	82.0	80 to 120	6.19	20
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW27035	Chloride, Total	mg/L	0.00	0.25	10.00	12.2	2.33	9.80	9 to 11	98.6	80 to 120	0.428	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report
 Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW26968

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.00525	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0253	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/15/2016	EPA 200.7		1	0.02	0.1	0.167	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		10	1.0	5.0	81.7	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/15/2016	EPA 200.7		1	0.01	0.05	0.0825	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00452	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	470	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	2.06	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.028	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		10	3.0	10	163	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Recovery for Calcium is out of range.
 The spike amount is less than 30% of the sample amount,
 therefore will not be qualified. SGC 12/27/16

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW26968

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW27037 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0953	0.0930	0.103	0.085 to 0.115	95.3	70 to 130	2.47	20	
AW27037 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.0958	0.0948	0.0954	0.085 to 0.115	95.8	70 to 130	1.05	20	
AW27037 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0917	0.0924	0.0917	0.085 to 0.115	91.7	70 to 130	0.739	20	
AW26968 Lithium, Total	mg/L	0.0000296	0.022	0.20	0.290	0.296	0.199	0.17 to 0.23	104	70 to 130	2.05	20	
AW26968 Boron, Total	mg/L	0.00169	0.044	1.00	1.12	1.14	0.957	0.85 to 1.15	95.5	70 to 130	1.77	20	
AW27037 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0931	0.0952	0.1000	0.085 to 0.115	93.1	70 to 130	2.25	20	
AW27037 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0934	0.0947	0.0975	0.085 to 0.115	93.4	70 to 130	1.45	20	
AW27036 Mercury, Total by CVAA	mg/L	0.000130	0.0005	0.004	0.00388	0.00388	0.00401	0.0034 to 0.0046	97.0	70 to 130	0.0361	20	
AW27037 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0909	0.0900	0.0981	0.085 to 0.115	90.9	70 to 130	1.03	20	
AW27037 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0979	0.0981	0.101	0.085 to 0.115	97.9	70 to 130	0.196	20	
AW27037 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0877	0.0893	0.0920	0.085 to 0.115	87.7	70 to 130	1.81	20	
AW27037 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0909	0.0919	0.0944	0.085 to 0.115	90.9	70 to 130	1.12	20	
AW26968 Calcium, Total	mg/L	-0.0718	0.22	5.00	83.1	82.4	4.79	4.25 to 5.75	28.0	70 to 130	0.846	20	
AW27037 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0923	0.0948	0.0927	0.085 to 0.115	92.3	70 to 130	2.78	20	
AW27037 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0906	0.0900	0.0994	0.085 to 0.115	90.6	70 to 130	0.669	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Recovery for Calcium is out of range.
 The spike amount is less than 30% of the sample amount,
 therefore will not be qualified. SGC 12/27/16

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW26968

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW27035	Sulfate, Total	mg/L	-1.53	1.0	1000	2500	1340	20.2	18 to 22	117	80 to 120	0.749	20
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW27035	Chloride, Total	mg/L	0.00	0.25	10.00	12.2	2.33	9.80	9 to 11	98.6	80 to 120	0.428	20
AW27035	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.69	0.047		1.8 to 2.2	82.0	80 to 120	6.19	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Recovery for Calcium is out of range.
 The spike amount is less than 30% of the sample amount,
 therefore will not be qualified. SGC 12/27/16

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW26969

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.218	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/28/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/21/2016	EPA 200.7		10	1.0	5.0	42.6	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/19/2017	EPA 200.7		5	0.01	0.05	J 0.0120	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	229	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	5.53	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	J 0.031	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	20.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW26969

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW27037 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0953	0.0930	0.103	0.085 to 0.115	95.3	70 to 130	2.47	20	
AW27038 Calcium, Total	mg/L	-0.0271	0.22	5.00	254	260	4.67	4.25 to 5.75	6.46	70 to 130	2.33	20	
AW27037 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0923	0.0948	0.0927	0.085 to 0.115	92.3	70 to 130	2.78	20	
AW27037 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0906	0.0900	0.0994	0.085 to 0.115	90.6	70 to 130	0.669	20	
AW27037 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0931	0.0952	0.1000	0.085 to 0.115	93.1	70 to 130	2.25	20	
AW27037 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0934	0.0947	0.0975	0.085 to 0.115	93.4	70 to 130	1.45	20	
AW27036 Mercury, Total by CVAA	mg/L	0.000130	0.0005	0.004	0.00388	0.00388	0.00401	0.0034 to 0.0046	97.0	70 to 130	0.0361	20	
AW27037 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0909	0.0900	0.0981	0.085 to 0.115	90.9	70 to 130	1.03	20	
AW27037 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0979	0.0981	0.101	0.085 to 0.115	97.9	70 to 130	0.196	20	
AW27037 Lithium, Total	mg/L	-0.000573	0.022	0.20	0.199	0.195	0.220	0.17 to 0.23	99.5	70 to 130	1.99	20	
AW27037 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0917	0.0924	0.0917	0.085 to 0.115	91.7	70 to 130	0.739	20	
AW27037 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0877	0.0893	0.0920	0.085 to 0.115	87.7	70 to 130	1.81	20	
AW27037 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0909	0.0919	0.0944	0.085 to 0.115	90.9	70 to 130	1.12	20	
AW27038 Boron, Total	mg/L	-0.00164	0.044	1.00	1.07	1.06	0.995	0.85 to 1.15	104	70 to 130	1.45	20	
AW27037 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.0958	0.0948	0.0954	0.085 to 0.115	95.8	70 to 130	1.05	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW26969

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW27035	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.69	0.047		1.8 to 2.2	82.0	80 to 120	6.19	20
AW26969	Solids, Dissolved	mg/L	-3.0	25			226	41.0	40 to 60			0.659	5
AW27035	Chloride, Total	mg/L	0.00	0.25	10.00	12.2	2.33	9.80	9 to 11	98.6	80 to 120	0.428	20
AW27035	Sulfate, Total	mg/L	-1.53	1.0	1000	2500	1340	20.2	18 to 22	117	80 to 120	0.749	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW26970

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/27/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/28/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/21/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/10/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/19/2017	EPA 200.7		5	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/31/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/28/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	10/28/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	10/28/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW26970

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW27037 Beryllium, Total	mg/L	0.000142	0.00132	0.10	0.0953	0.0930	0.103	0.085 to 0.115	95.3	70 to 130	2.47	20	
AW27037 Barium, Total	mg/L	0.00000874	0.0044	0.10	0.0958	0.0948	0.0954	0.085 to 0.115	95.8	70 to 130	1.05	20	
AW27037 Lithium, Total	mg/L	-0.000573	0.022	0.20	0.199	0.195	0.220	0.17 to 0.23	99.5	70 to 130	1.99	20	
AW27037 Molybdenum, Total	mg/L	0.0000219	0.0044	0.10	0.0917	0.0924	0.0917	0.085 to 0.115	91.7	70 to 130	0.739	20	
AW27038 Calcium, Total	mg/L	-0.0271	0.22	5.00	254	260	4.67	4.25 to 5.75	6.46	70 to 130	2.33	20	
AW27036 Mercury, Total by CVAA	mg/L	0.000130	0.0005	0.004	0.00388	0.00388	0.00401	0.0034 to 0.0046	97.0	70 to 130	0.0361	20	
AW27037 Lead, Total	mg/L	0.0000912	0.0022	0.10	0.0909	0.0900	0.0981	0.085 to 0.115	90.9	70 to 130	1.03	20	
AW27037 Selenium, Total	mg/L	0.0000293	0.0044	0.10	0.0979	0.0981	0.101	0.085 to 0.115	97.9	70 to 130	0.196	20	
AW27037 Antimony, Total	mg/L	0.0000949	0.00132	0.10	0.0923	0.0948	0.0927	0.085 to 0.115	92.3	70 to 130	2.78	20	
AW27037 Thallium, Total	mg/L	0.0000761	0.00044	0.10	0.0906	0.0900	0.0994	0.085 to 0.115	90.6	70 to 130	0.669	20	
AW27037 Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.0931	0.0952	0.1000	0.085 to 0.115	93.1	70 to 130	2.25	20	
AW27037 Cadmium, Total	mg/L	0.00000124	0.00044	0.10	0.0934	0.0947	0.0975	0.085 to 0.115	93.4	70 to 130	1.45	20	
AW27037 Chromium, Total	mg/L	0.00000918	0.0044	0.10	0.0877	0.0893	0.0920	0.085 to 0.115	87.7	70 to 130	1.81	20	
AW27037 Cobalt, Total	mg/L	0.0000109	0.0044	0.10	0.0909	0.0919	0.0944	0.085 to 0.115	90.9	70 to 130	1.12	20	
AW27038 Boron, Total	mg/L	-0.00164	0.044	1.00	1.07	1.06	0.995	0.85 to 1.15	104	70 to 130	1.45	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 25-Oct-16
 Customer ID:
 Delivery Date: 26-Oct-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW26970

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26974	Solids, Dissolved	mg/L	-3.0	25			2400	41.0	40 to 60			1.05	5
AW27035	Chloride, Total	mg/L	0.00	0.25	10.00	12.2	2.33	9.80	9 to 11	98.6	80 to 120	0.428	20
AW27035	Sulfate, Total	mg/L	-1.53	1.0	1000	2500	1340	20.2	18 to 22	117	80 to 120	0.749	20
AW27035	Fluoride, Total	mg/L	-0.051	0.3	2.00	1.69	0.047		1.8 to 2.2	82.0	80 to 120	6.19	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 10/26/2016 15:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, John Pugh, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Gorgas Ash Pond"/>

Analysis Requested

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	10/24/2016	14:20	3	Groundwater		AW26960
MW-21	10/25/2016	11:55	3	Groundwater		AW26961
FB-2	10/25/2016	12:15	3	Field Blank		AW26962
MW-15	10/25/2016	16:05	3	Groundwater		AW26963
EB-1	10/25/2016	16:40	3	Equipment Blank		AW26964

Relinquished By	Received By	Date/Time
<i>Jason Rouss</i>	<i>SA</i>	10/26/2016 07:56
<i>Che George</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.10.26 15:23:25 -05'00'</small>	10/26/2016 15:23

SmarTroll ID

Turbidity ID

All metals and radiological bottles have pH < 2

Cooler Temp

Thermometer ID

pH Strip ID



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond

Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle
Comments	Radium Duplicate 2 MW- 13

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	10/24/2016	12:06	3	Groundwater		AW26912
MW-18	10/24/2016	13:26	3	Groundwater		AW26913
MW-18DUP	10/24/2016	13:26	3	Sample Duplicate		AW26914
MW-19	10/24/2016	14:42	3	Groundwater		AW26915
MW-12	10/25/2016	09:44	3	Groundwater		AW26916
MW-13	10/25/2016	11:31	5	Groundwater		AW26917
MW-14	10/25/2016	12:53	3	Groundwater		AW26918
MW-16D	10/25/2016	14:16	3	Groundwater		AW26919

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	<i>[Signature]</i>	10/26/2016 08:00

SmarTroll ID	5151-26193-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	
Cooler Temp	1.4 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	5521-28273-20-17	



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 10/26/2016 15:00

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6D	10/24/2016	16:33	3	Groundwater		AW26957
MW-6D Dup	10/24/2016	16:33	3	Sample Duplicate		AW26958
MW-6S	10/26/2016	09:55	3	Groundwater		AW26959

Relinquished By	Received By	Date/Time
 <i>Nick Pitts</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.10.26 15:28:31 -05'00'</small>	10/26/2016 15:28

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3734-18805-1-1	Cooler Temp
		0.5 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5521-28273-20-17



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 10/26/2016 15:30

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments	Radium Duplicate collected at MW9 3.0 mL HNO3 added to bottle 1 and 2.0mL HNO3 added to bottle 2 (AW26966) 10/26/16 SGC		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW7	10/24/2016	16:25	3	Groundwater		AW26965
MW7 DIS	10/24/2016	16:32	3	Groundwater	✓	AW26966
MW8	10/25/2016	10:53	3	Groundwater		AW26967
MW9	10/25/2016	13:49	5	Groundwater		AW26968
MW11	10/25/2016	15:12	3	Groundwater		AW26969
FB1	10/25/2016	15:50	3	Field Blank		AW26970

Relinquished By	Received By	Date/Time
 	 Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.10.26 15:31:38 -05'00'</small>	10/26/2016 07:49 10/26/2016 15:31

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp
		0.1 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5521-28273-20-17

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: 400-129468-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (3)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

12/15/2016 11:12:07 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	28
Chronicle	29
QC Association	35
QC Sample Results	37
Chain of Custody	41
Receipt Checklists	43
Certification Summary	44

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

Job ID: 400-129468-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-129468-1

RAD

Method(s) 9320: Radium-228 Prep Batch 160-278293: The following samples did not meet the RPD/RER criteria of 40%/1. The sample and DU were re-prepped in a new batch (160-283082) and the re-extract results confirm the result from sample 400-129468-A-20-C (1.25 pCi/L) indicating the result for 400-129468-A-20-D DU (0.3900 pCi/L) was an anomaly. Batch precision is demonstrated with the other set of QC in the batch with passing RPD/RER (400-129468-A-6-C and 400-129468-A-6-D DU). The data have been qualified and reported. AW26968 MW-9 (400-129468-20) and AW26968 MW-9 (400-129468-20[DU])

Method(s) PrecSep_0: Radium-228 Prep Batch 160-278293: The following samples were prepared at a reduced aliquot due to limited volume: AW26912 MW-2 (400-129468-1), AW26913 MW-18 (400-129468-2), AW26914 MW-18 DUP (400-129468-3), AW26915 MW-19 (400-129468-4), AW26916 MW-12 (400-129468-5), AW26917 MW-13 (400-129468-6), AW26917 MW-13 (400-129468-6[DU]), AW26918 MW-14 (400-129468-7), AW26919 MW-16D (400-129468-8), AW26957 MW-6D (400-129468-9), AW26958 MW-6D DUP (400-129468-10), AW26959 MW-6S (400-129468-11), AW26960 MW-17 (400-129468-12), AW26961 MW-21 (400-129468-13), AW26962 FB-2 (400-129468-14), AW26963 MW-15 (400-129468-15), AW26964 EB-1 (400-129468-16), AW26965 MW-7 (400-129468-17), AW26966 MW-7 DISSOLVED (400-129468-18), AW26967 MW-8 (400-129468-19), AW26968 MW-9 (400-129468-20) and AW26968 MW-9 (400-129468-20[DU]). Sample 400-129468-A-17 was further reduced due to sediment in the sample.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-278250: The following samples were prepared at a reduced aliquot due to limited volume: AW26969 MW-11 (400-129468-21) and AW26970 FB-1 (400-129468-22).

Method(s) PrecSep_0: Radium-226 Prep Batch 160-283082: The following samples were prepared at a reduced aliquot due to limited volume: AW26968 MW-9 (400-129468-20) and AW26968 MW-9 (400-129468-20[DU]).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-278234: The following sample was prepared at a reduced aliquot due to limited volume: AW26969 MW-11 (400-129468-21) and AW26970 FB-1 (400-129468-22).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-278287: The following samples were prepared at a reduced aliquot due to limited volume: AW26912 MW-2 (400-129468-1), AW26913 MW-18 (400-129468-2), AW26914 MW-18 DUP (400-129468-3), AW26915 MW-19 (400-129468-4), AW26916 MW-12 (400-129468-5), AW26917 MW-13 (400-129468-6), AW26917 MW-13 (400-129468-6[DU]), AW26918 MW-14 (400-129468-7), AW26919 MW-16D (400-129468-8), AW26957 MW-6D (400-129468-9), AW26958 MW-6D DUP (400-129468-10), AW26959 MW-6S (400-129468-11), AW26960 MW-17 (400-129468-12), AW26961 MW-21 (400-129468-13), AW26962 FB-2 (400-129468-14), AW26963 MW-15 (400-129468-15), AW26964 EB-1 (400-129468-16), AW26965 MW-7 (400-129468-17), AW26966 MW-7 DISSOLVED (400-129468-18), AW26967 MW-8 (400-129468-19), AW26968 MW-9 (400-129468-20) and AW26968 MW-9 (400-129468-20[DU]). Sample 400-129468-A-17 was further reduced due to sediment in the sample.

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129468-1	AW26912 MW-2	Water	10/24/16 12:06	11/01/16 16:52
400-129468-2	AW26913 MW-18	Water	10/24/16 13:26	11/01/16 16:52
400-129468-3	AW26914 MW-18 DUP	Water	10/24/16 13:26	11/01/16 16:52
400-129468-4	AW26915 MW-19	Water	10/24/16 14:42	11/01/16 16:52
400-129468-5	AW26916 MW-12	Water	10/25/16 09:44	11/01/16 16:52
400-129468-6	AW26917 MW-13	Water	10/25/16 11:31	11/01/16 16:52
400-129468-7	AW26918 MW-14	Water	10/25/16 12:53	11/01/16 16:52
400-129468-8	AW26919 MW-16D	Water	10/25/16 14:16	11/01/16 16:52
400-129468-9	AW26957 MW-6D	Water	10/24/16 16:33	11/01/16 16:52
400-129468-10	AW26958 MW-6D DUP	Water	10/24/16 16:33	11/01/16 16:52
400-129468-11	AW26959 MW-6S	Water	10/26/16 09:55	11/01/16 16:52
400-129468-12	AW26960 MW-17	Water	10/24/16 14:20	11/01/16 16:52
400-129468-13	AW26961 MW-21	Water	10/25/16 11:55	11/01/16 16:52
400-129468-14	AW26962 FB-2	Water	10/25/16 12:15	11/01/16 16:52
400-129468-15	AW26963 MW-15	Water	10/25/16 16:05	11/01/16 16:52
400-129468-16	AW26964 EB-1	Water	10/25/16 16:40	11/01/16 16:52
400-129468-17	AW26965 MW-7	Water	10/24/16 16:25	11/01/16 16:52
400-129468-18	AW26966 MW-7 DISSOLVED	Water	10/24/16 16:32	11/01/16 16:52
400-129468-19	AW26967 MW-8	Water	10/25/16 10:53	11/01/16 16:52
400-129468-20	AW26968 MW-9	Water	10/25/16 13:49	11/01/16 16:52
400-129468-21	AW26969 MW-11	Water	10/25/16 15:12	11/01/16 16:52
400-129468-22	AW26970 FB-1	Water	10/25/16 15:50	11/01/16 16:52

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26912 MW-2

Lab Sample ID: 400-129468-1

Date Collected: 10/24/16 12:06

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0440	U	0.214	0.214	1.00	0.476	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					11/08/16 16:09	12/06/16 22:59	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		0.368	0.392	1.00	0.424	pCi/L	11/08/16 16:45	12/06/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					11/08/16 16:45	12/06/16 15:23	1
Y Carrier	89.0		40 - 110					11/08/16 16:45	12/06/16 15:23	1

Method: Ra226_Ra228 - Combined Radium-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		0.426	0.447	5.00	0.476	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26913 MW-18

Lab Sample ID: 400-129468-2

Date Collected: 10/24/16 13:26

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.198	U	0.323	0.323	1.00	0.560	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					11/08/16 16:09	12/06/16 22:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.611	U	0.423	0.427	1.00	0.662	pCi/L	11/08/16 16:45	12/06/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					11/08/16 16:45	12/06/16 15:23	1
Y Carrier	84.9		40 - 110					11/08/16 16:45	12/06/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.809		0.532	0.535	5.00	0.662	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26914 MW-18 DUP

Lab Sample ID: 400-129468-3

Date Collected: 10/24/16 13:26

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.179	U	0.308	0.308	1.00	0.542	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					11/08/16 16:09	12/06/16 22:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.544	U	0.380	0.383	1.00	0.589	pCi/L	11/08/16 16:45	12/06/16 15:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					11/08/16 16:45	12/06/16 15:23	1
Y Carrier	82.6		40 - 110					11/08/16 16:45	12/06/16 15:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.723		0.489	0.492	5.00	0.589	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26915 MW-19

Lab Sample ID: 400-129468-4

Date Collected: 10/24/16 14:42

Matrix: Water

Date Received: 11/01/16 16:52

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	U	0.376	0.378	1.00	0.562	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					11/08/16 16:09	12/06/16 22:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.10		0.381	0.394	1.00	0.504	pCi/L	11/08/16 16:45	12/06/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					11/08/16 16:45	12/06/16 15:24	1
Y Carrier	84.9		40 - 110					11/08/16 16:45	12/06/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.53		0.535	0.546	5.00	0.562	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26916 MW-12

Lab Sample ID: 400-129468-5

Date Collected: 10/25/16 09:44

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0959	U	0.287	0.287	1.00	0.540	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					11/08/16 16:09	12/06/16 22:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.824	U	0.527	0.532	1.00	0.827	pCi/L	11/08/16 16:45	12/06/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					11/08/16 16:45	12/06/16 15:24	1
Y Carrier	88.2		40 - 110					11/08/16 16:45	12/06/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.920		0.600	0.605	5.00	0.827	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26917 MW-13

Lab Sample ID: 400-129468-6

Date Collected: 10/25/16 11:31

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0386	U	0.267	0.267	1.00	0.560	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/08/16 16:09	12/06/16 22:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.533	U	0.353	0.357	1.00	0.545	pCi/L	11/08/16 16:45	12/06/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					11/08/16 16:45	12/06/16 15:24	1
Y Carrier	87.1		40 - 110					11/08/16 16:45	12/06/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.494	U	0.443	0.445	5.00	0.560	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26918 MW-14

Lab Sample ID: 400-129468-7

Date Collected: 10/25/16 12:53

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.285	0.286	1.00	0.530	pCi/L	11/08/16 16:09	12/06/16 22:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/08/16 16:09	12/06/16 22:59	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		0.400	0.411	1.00	0.559	pCi/L	11/08/16 16:45	12/06/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/08/16 16:45	12/06/16 15:24	1
Y Carrier	87.1		40 - 110					11/08/16 16:45	12/06/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.491	0.500	5.00	0.559	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26919 MW-16D

Lab Sample ID: 400-129468-8

Date Collected: 10/25/16 14:16

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.000	U	0.232	0.232	1.00	0.481	pCi/L	11/08/16 16:09	12/06/16 23:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					11/08/16 16:09	12/06/16 23:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.725		0.442	0.447	1.00	0.686	pCi/L	11/08/16 16:45	12/06/16 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					11/08/16 16:45	12/06/16 15:24	1
Y Carrier	84.1		40 - 110					11/08/16 16:45	12/06/16 15:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.725		0.499	0.503	5.00	0.686	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26957 MW-6D

Lab Sample ID: 400-129468-9

Date Collected: 10/24/16 16:33

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.125	U	0.314	0.314	1.00	0.572	pCi/L	11/08/16 16:09	12/06/16 23:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					11/08/16 16:09	12/06/16 23:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.202	U	0.334	0.334	1.00	0.563	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	88.6		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.327	U	0.458	0.459	5.00	0.572	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26958 MW-6D DUP

Lab Sample ID: 400-129468-10

Date Collected: 10/24/16 16:33

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.446		0.254	0.257	1.00	0.310	pCi/L	11/08/16 16:09	12/07/16 17:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					11/08/16 16:09	12/07/16 17:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.615		0.366	0.370	1.00	0.558	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	86.0		40 - 110					11/08/16 16:45	12/06/16 15:25	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	1.06		0.445	0.451	5.00	0.558	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26959 MW-6S

Lab Sample ID: 400-129468-11

Date Collected: 10/26/16 09:55

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.477	U	0.480	0.482	1.00	0.757	pCi/L	11/08/16 16:09	12/06/16 23:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	55.6		40 - 110					11/08/16 16:09	12/06/16 23:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.244	U	0.493	0.494	1.00	0.844	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	55.6		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	86.7		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.721	U	0.689	0.690	5.00	0.844	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26960 MW-17

Lab Sample ID: 400-129468-12

Date Collected: 10/24/16 14:20

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.178	U	0.264	0.265	1.00	0.454	pCi/L	11/08/16 16:09	12/06/16 23:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/08/16 16:09	12/06/16 23:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.516		0.332	0.335	1.00	0.507	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	86.4		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.694		0.424	0.427	5.00	0.507	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26961 MW-21

Lab Sample ID: 400-129468-13

Date Collected: 10/25/16 11:55

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.469	U	0.350	0.353	1.00	0.500	pCi/L	11/08/16 16:09	12/06/16 23:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/08/16 16:09	12/06/16 23:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.132	U	0.312	0.313	1.00	0.537	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	89.0		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.601		0.469	0.471	5.00	0.537	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26962 FB-2

Lab Sample ID: 400-129468-14

Date Collected: 10/25/16 12:15

Matrix: Water

Date Received: 11/01/16 16:52

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	U	0.303	0.305	1.00	0.467	pCi/L	11/08/16 16:09	12/06/16 23:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					11/08/16 16:09	12/06/16 23:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.262	U	0.318	0.318	1.00	0.525	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	81.9		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.578		0.439	0.441	5.00	0.525	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26963 MW-15

Lab Sample ID: 400-129468-15

Date Collected: 10/25/16 16:05

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0389	U	0.276	0.276	1.00	0.544	pCi/L	11/08/16 16:09	12/06/16 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					11/08/16 16:09	12/06/16 22:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.155	U	0.326	0.327	1.00	0.559	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	85.2		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.194	U	0.428	0.428	5.00	0.559	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26964 EB-1

Lab Sample ID: 400-129468-16

Date Collected: 10/25/16 16:40

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0871	U	0.295	0.295	1.00	0.561	pCi/L	11/08/16 16:09	12/06/16 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					11/08/16 16:09	12/06/16 22:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.294	U	0.374	0.375	1.00	0.621	pCi/L	11/08/16 16:45	12/06/16 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					11/08/16 16:45	12/06/16 15:25	1
Y Carrier	88.6		40 - 110					11/08/16 16:45	12/06/16 15:25	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	0.382	U	0.476	0.477	5.00	0.621	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26965 MW-7

Lab Sample ID: 400-129468-17

Date Collected: 10/24/16 16:25

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0554	U	0.319	0.319	1.00	0.703	pCi/L	11/08/16 16:09	12/06/16 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					11/08/16 16:09	12/06/16 22:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.393	U	0.453	0.454	1.00	0.745	pCi/L	11/08/16 16:45	12/06/16 15:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					11/08/16 16:45	12/06/16 15:26	1
Y Carrier	86.4		40 - 110					11/08/16 16:45	12/06/16 15:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.337	U	0.554	0.555	5.00	0.745	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26966 MW-7 DISSOLVED

Lab Sample ID: 400-129468-18

Date Collected: 10/24/16 16:32

Matrix: Water

Date Received: 11/01/16 16:52

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.297	U	0.296	0.297	1.00	0.457	pCi/L	11/08/16 16:09	12/06/16 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					11/08/16 16:09	12/06/16 22:56	1

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.336	0.336	1.00	0.584	pCi/L	11/08/16 16:45	12/06/16 15:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		40 - 110					11/08/16 16:45	12/06/16 15:26	1
Y Carrier	85.2		40 - 110					11/08/16 16:45	12/06/16 15:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.414		0.448	0.448	5.00	0.584	pCi/L		12/14/16 16:01	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26967 MW-8

Lab Sample ID: 400-129468-19

Date Collected: 10/25/16 10:53

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.107	U	0.235	0.236	1.00	0.534	pCi/L	11/08/16 16:09	12/06/16 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					11/08/16 16:09	12/06/16 22:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.170	U	0.297	0.298	1.00	0.505	pCi/L	11/08/16 16:45	12/06/16 15:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					11/08/16 16:45	12/06/16 15:26	1
Y Carrier	86.7		40 - 110					11/08/16 16:45	12/06/16 15:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0629	U	0.379	0.380	5.00	0.534	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26968 MW-9

Lab Sample ID: 400-129468-20

Date Collected: 10/25/16 13:49

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0887	U	0.264	0.264	1.00	0.492	pCi/L	11/08/16 16:09	12/06/16 22:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/08/16 16:09	12/06/16 22:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.25		0.405	0.422	1.00	0.529	pCi/L	11/08/16 16:45	12/06/16 15:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/08/16 16:45	12/06/16 15:26	1
Y Carrier	89.0		40 - 110					11/08/16 16:45	12/06/16 15:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.34		0.484	0.497	5.00	0.529	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26969 MW-11

Lab Sample ID: 400-129468-21

Date Collected: 10/25/16 15:12

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225	U	0.200	0.201	1.00	0.303	pCi/L	11/08/16 11:40	12/04/16 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					11/08/16 11:40	12/04/16 14:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0163	U	0.305	0.305	1.00	0.547	pCi/L	11/08/16 12:40	12/02/16 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					11/08/16 12:40	12/02/16 13:30	1
Y Carrier	84.9		40 - 110					11/08/16 12:40	12/02/16 13:30	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	0.241	U	0.365	0.365	5.00	0.547	pCi/L		12/14/16 15:48	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26970 FB-1

Lab Sample ID: 400-129468-22

Date Collected: 10/25/16 15:50

Matrix: Water

Date Received: 11/01/16 16:52

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0213	U	0.140	0.140	1.00	0.278	pCi/L	11/08/16 11:40	12/04/16 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					11/08/16 11:40	12/04/16 14:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.550		0.342	0.346	1.00	0.523	pCi/L	11/08/16 12:40	12/02/16 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					11/08/16 12:40	12/02/16 13:30	1
Y Carrier	86.0		40 - 110					11/08/16 12:40	12/02/16 13:30	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	0.571		0.370	0.373	5.00	0.523	pCi/L		12/14/16 15:48	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
F	Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26912 MW-2

Date Collected: 10/24/16 12:06

Date Received: 11/01/16 16:52

Lab Sample ID: 400-129468-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:23	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26913 MW-18

Date Collected: 10/24/16 13:26

Date Received: 11/01/16 16:52

Lab Sample ID: 400-129468-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:23	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26914 MW-18 DUP

Date Collected: 10/24/16 13:26

Date Received: 11/01/16 16:52

Lab Sample ID: 400-129468-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:23	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26915 MW-19

Date Collected: 10/24/16 14:42

Date Received: 11/01/16 16:52

Lab Sample ID: 400-129468-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:24	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26916 MW-12

Lab Sample ID: 400-129468-5

Date Collected: 10/25/16 09:44

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:24	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26917 MW-13

Lab Sample ID: 400-129468-6

Date Collected: 10/25/16 11:31

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:24	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26918 MW-14

Lab Sample ID: 400-129468-7

Date Collected: 10/25/16 12:53

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 22:59	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:24	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26919 MW-16D

Lab Sample ID: 400-129468-8

Date Collected: 10/25/16 14:16

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 23:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:24	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26957 MW-6D

Lab Sample ID: 400-129468-9

Date Collected: 10/24/16 16:33

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 23:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26958 MW-6D DUP

Lab Sample ID: 400-129468-10

Date Collected: 10/24/16 16:33

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282986	12/07/16 17:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26959 MW-6S

Lab Sample ID: 400-129468-11

Date Collected: 10/26/16 09:55

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 23:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26960 MW-17

Lab Sample ID: 400-129468-12

Date Collected: 10/24/16 14:20

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 23:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26961 MW-21

Lab Sample ID: 400-129468-13

Date Collected: 10/25/16 11:55

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 23:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26962 FB-2

Lab Sample ID: 400-129468-14

Date Collected: 10/25/16 12:15

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282776	12/06/16 23:00	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26963 MW-15

Lab Sample ID: 400-129468-15

Date Collected: 10/25/16 16:05

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282777	12/06/16 22:56	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26964 EB-1

Lab Sample ID: 400-129468-16

Date Collected: 10/25/16 16:40

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282777	12/06/16 22:56	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:25	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26965 MW-7

Lab Sample ID: 400-129468-17

Date Collected: 10/24/16 16:25

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282777	12/06/16 22:56	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:26	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26966 MW-7 DISSOLVED

Lab Sample ID: 400-129468-18

Date Collected: 10/24/16 16:32

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Dissolved	Analysis	9315		1	282777	12/06/16 22:56	MLK	TAL SL
Dissolved	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Dissolved	Analysis	9320		1	282776	12/06/16 15:26	MLK	TAL SL
Dissolved	Analysis	Ra226_Ra228		1	283954	12/14/16 16:01	RTM	TAL SL

Client Sample ID: AW26967 MW-8

Lab Sample ID: 400-129468-19

Date Collected: 10/25/16 10:53

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282777	12/06/16 22:56	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:26	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26968 MW-9

Lab Sample ID: 400-129468-20

Date Collected: 10/25/16 13:49

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278287	11/08/16 16:09	AS	TAL SL
Total/NA	Analysis	9315		1	282777	12/06/16 22:56	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278293	11/08/16 16:45	AS	TAL SL
Total/NA	Analysis	9320		1	282776	12/06/16 15:26	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

Client Sample ID: AW26969 MW-11

Lab Sample ID: 400-129468-21

Date Collected: 10/25/16 15:12

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278234	11/08/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	282200	12/04/16 14:17	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278250	11/08/16 12:40	AS	TAL SL
Total/NA	Analysis	9320		1	282092	12/02/16 13:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	RTM	TAL SL

Client Sample ID: AW26970 FB-1

Lab Sample ID: 400-129468-22

Date Collected: 10/25/16 15:50

Matrix: Water

Date Received: 11/01/16 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			278234	11/08/16 11:40	AS	TAL SL
Total/NA	Analysis	9315		1	282200	12/04/16 14:17	MLK	TAL SL
Total/NA	Prep	PrecSep_0			278250	11/08/16 12:40	AS	TAL SL
Total/NA	Analysis	9320		1	282092	12/02/16 13:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	283952	12/14/16 15:48	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Rad

Prep Batch: 278234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129468-21	AW26969 MW-11	Total/NA	Water	PrecSep-21	
400-129468-22	AW26970 FB-1	Total/NA	Water	PrecSep-21	
MB 160-278234/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-278234/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-129467-B-3-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 278250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129468-21	AW26969 MW-11	Total/NA	Water	PrecSep_0	
400-129468-22	AW26970 FB-1	Total/NA	Water	PrecSep_0	
MB 160-278250/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-278250/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-129467-B-3-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 278287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129468-1	AW26912 MW-2	Total/NA	Water	PrecSep-21	
400-129468-2	AW26913 MW-18	Total/NA	Water	PrecSep-21	
400-129468-3	AW26914 MW-18 DUP	Total/NA	Water	PrecSep-21	
400-129468-4	AW26915 MW-19	Total/NA	Water	PrecSep-21	
400-129468-5	AW26916 MW-12	Total/NA	Water	PrecSep-21	
400-129468-6	AW26917 MW-13	Total/NA	Water	PrecSep-21	
400-129468-7	AW26918 MW-14	Total/NA	Water	PrecSep-21	
400-129468-8	AW26919 MW-16D	Total/NA	Water	PrecSep-21	
400-129468-9	AW26957 MW-6D	Total/NA	Water	PrecSep-21	
400-129468-10	AW26958 MW-6D DUP	Total/NA	Water	PrecSep-21	
400-129468-11	AW26959 MW-6S	Total/NA	Water	PrecSep-21	
400-129468-12	AW26960 MW-17	Total/NA	Water	PrecSep-21	
400-129468-13	AW26961 MW-21	Total/NA	Water	PrecSep-21	
400-129468-14	AW26962 FB-2	Total/NA	Water	PrecSep-21	
400-129468-15	AW26963 MW-15	Total/NA	Water	PrecSep-21	
400-129468-16	AW26964 EB-1	Total/NA	Water	PrecSep-21	
400-129468-17	AW26965 MW-7	Total/NA	Water	PrecSep-21	
400-129468-18	AW26966 MW-7 DISSOLVED	Dissolved	Water	PrecSep-21	
400-129468-19	AW26967 MW-8	Total/NA	Water	PrecSep-21	
400-129468-20	AW26968 MW-9	Total/NA	Water	PrecSep-21	
MB 160-278287/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-278287/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-129468-6 DU	AW26917 MW-13	Total/NA	Water	PrecSep-21	
400-129468-20 DU	AW26968 MW-9	Total/NA	Water	PrecSep-21	

Prep Batch: 278293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129468-1	AW26912 MW-2	Total/NA	Water	PrecSep_0	
400-129468-2	AW26913 MW-18	Total/NA	Water	PrecSep_0	
400-129468-3	AW26914 MW-18 DUP	Total/NA	Water	PrecSep_0	
400-129468-4	AW26915 MW-19	Total/NA	Water	PrecSep_0	
400-129468-5	AW26916 MW-12	Total/NA	Water	PrecSep_0	
400-129468-6	AW26917 MW-13	Total/NA	Water	PrecSep_0	
400-129468-7	AW26918 MW-14	Total/NA	Water	PrecSep_0	
400-129468-8	AW26919 MW-16D	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

Rad (Continued)

Prep Batch: 278293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129468-9	AW26957 MW-6D	Total/NA	Water	PrecSep_0	
400-129468-10	AW26958 MW-6D DUP	Total/NA	Water	PrecSep_0	
400-129468-11	AW26959 MW-6S	Total/NA	Water	PrecSep_0	
400-129468-12	AW26960 MW-17	Total/NA	Water	PrecSep_0	
400-129468-13	AW26961 MW-21	Total/NA	Water	PrecSep_0	
400-129468-14	AW26962 FB-2	Total/NA	Water	PrecSep_0	
400-129468-15	AW26963 MW-15	Total/NA	Water	PrecSep_0	
400-129468-16	AW26964 EB-1	Total/NA	Water	PrecSep_0	
400-129468-17	AW26965 MW-7	Total/NA	Water	PrecSep_0	
400-129468-18	AW26966 MW-7 DISSOLVED	Dissolved	Water	PrecSep_0	
400-129468-19	AW26967 MW-8	Total/NA	Water	PrecSep_0	
400-129468-20	AW26968 MW-9	Total/NA	Water	PrecSep_0	
MB 160-278293/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-278293/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-129468-6 DU	AW26917 MW-13	Total/NA	Water	PrecSep_0	
400-129468-20 DU	AW26968 MW-9	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-278234/1-A
Matrix: Water
Analysis Batch: 282199

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278234

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.06153	U	0.120	0.121	1.00	0.216	pCi/L	11/08/16 11:40	12/04/16 14:03	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		11/08/16 11:40	12/04/16 14:03				1	
	88.6		40 - 110							

Lab Sample ID: LCS 160-278234/2-A
Matrix: Water
Analysis Batch: 282199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278234

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.11		1.58	1.00	0.221	pCi/L	127	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		11/08/16 11:40	12/04/16 14:03				1
	86.9		40 - 110						

Lab Sample ID: 400-129467-B-3-A DU
Matrix: Water
Analysis Batch: 282199

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 278234

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.210	U	0.1120	U	0.197	1.00	0.348	pCi/L	0.26	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		11/08/16 11:40	12/04/16 14:03				1	
	71.2		40 - 110							

Lab Sample ID: MB 160-278287/1-A
Matrix: Water
Analysis Batch: 282776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278287

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.3793	U	0.328	0.330	1.00	0.492	pCi/L	11/08/16 16:09	12/06/16 22:58	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		11/08/16 16:09	12/06/16 22:58				1	
	87.2		40 - 110							

Lab Sample ID: LCS 160-278287/2-A
Matrix: Water
Analysis Batch: 282776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278287

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	14.8	16.04		2.09	1.00	0.522	pCi/L	108	68 - 137

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

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

Lab Sample ID: LCS 160-278287/2-A
Matrix: Water
Analysis Batch: 282776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278287

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	86.0		40 - 110

Lab Sample ID: 400-129468-6 DU
Matrix: Water
Analysis Batch: 282776

Client Sample ID: AW26917 MW-13
Prep Type: Total/NA
Prep Batch: 278287

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	-0.0386	U	0.2333	U	0.321	1.00	0.540	pCi/L	0.46	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.6		40 - 110

Lab Sample ID: 400-129468-20 DU
Matrix: Water
Analysis Batch: 282778

Client Sample ID: AW26968 MW-9
Prep Type: Total/NA
Prep Batch: 278287

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0887	U	0.06841	U	0.271	1.00	0.522	pCi/L	0.04	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	84.6		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-278250/1-A
Matrix: Water
Analysis Batch: 282092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278250

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1885	U	0.248	0.249	1.00	0.413	pCi/L	11/08/16 12:40	12/02/16 13:27	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110	11/08/16 12:40	12/02/16 13:27	1
Y Carrier	81.9		40 - 110	11/08/16 12:40	12/02/16 13:27	1

Lab Sample ID: LCS 160-278250/2-A
Matrix: Water
Analysis Batch: 282092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278250

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.2	15.80		1.70	1.00	0.387	pCi/L	111	56 - 140

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-278250/2-A
Matrix: Water
Analysis Batch: 282092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278250

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.9		40 - 110
Y Carrier	86.7		40 - 110

Lab Sample ID: 400-129467-B-3-B DU
Matrix: Water
Analysis Batch: 282092

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 278250

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.422	U	0.8471		0.463	1.00	0.678	pCi/L	0.53	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	71.2		40 - 110
Y Carrier	82.2		40 - 110

Lab Sample ID: MB 160-278293/1-A
Matrix: Water
Analysis Batch: 282776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278293

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4951	U	0.363	0.366	1.00	0.570	pCi/L	11/08/16 16:45	12/06/16 15:23	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110	11/08/16 16:45	12/06/16 15:23	1
Y Carrier	86.0		40 - 110	11/08/16 16:45	12/06/16 15:23	1

Lab Sample ID: LCS 160-278293/2-A
Matrix: Water
Analysis Batch: 282776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278293

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.9	20.47		2.23	1.00	0.574	pCi/L	108	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.0		40 - 110
Y Carrier	82.6		40 - 110

Lab Sample ID: 400-129468-6 DU
Matrix: Water
Analysis Batch: 282776

Client Sample ID: AW26917 MW-13
Prep Type: Total/NA
Prep Batch: 278293

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.533	U	0.2937	U	0.309	1.00	0.502	pCi/L	0.36	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-129468-6 DU
Matrix: Water
Analysis Batch: 282776

Client Sample ID: AW26917 MW-13
Prep Type: Total/NA
Prep Batch: 278293

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.6		40 - 110
Y Carrier	86.7		40 - 110

Lab Sample ID: 400-129468-20 DU
Matrix: Water
Analysis Batch: 282777

Client Sample ID: AW26968 MW-9
Prep Type: Total/NA
Prep Batch: 278293

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER
										Limit
Radium-228	1.25		0.3900	U F	0.352	1.00	0.563	pCi/L	1.12	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	84.6		40 - 110
Y Carrier	90.1		40 - 110

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

Lab Sample ID: 400-129468-6 DU
Matrix: Water
Analysis Batch: 283952

Client Sample ID: AW26917 MW-13
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	0.494	U	0.5270	U	0.446	5.00	0.540	pCi/L	0.04	

Lab Sample ID: 400-129468-20 DU
Matrix: Water
Analysis Batch: 283952

Client Sample ID: AW26968 MW-9
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	1.34		0.4584	U	0.444	5.00	0.563	pCi/L	0.94	

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		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Client Contact: Sarah Copeland		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Page: Page 1 of 2	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Job #: 400-129-468	
City: Calera		PO #:		Preservation Codes:	
State, zip: AL, 35040		WO #:		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 Other:	
Phone: 205-664-6121(Tel)		Project #:		M - Hexene N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (Specify)	
Email: sgcopela@southernco.com		SSOW#:		Special Instructions/Note:	
Project Name: CCR		Site: Gorgas Ash Pond (3)		Total Number of Containers	
Sample Identification		Sample Date		Field Filtered Sample (Yes or No)	
AW26912	10/24/16	1206	G	Water	X
AW26913	10/24/16	1326	G	Water	X
AW26914	10/24/16	1326	G	Water	X
AW26915	10/24/16	1442	G	Water	X
AW26916	10/25/16	0944	G	Water	X
AW26917	10/25/16	1131	G	Water	Y X
AW26918	10/25/16	1253	G	Water	X
AW26919	10/25/16	1416	G	Water	X
AW26957	10/24/16	1633	G	Water	X
AW26958	10/24/16	1633	G	Water	X
AW26959	10/26/16	0955	G	Water	X
Possible Hazard Identification		Sample Time		Matrix	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Preservation Code		(W-water, S-solid, O-oil/water, A-Asph)	
Deliverable Requested: I, II, III, IV, Other (specify)		Date/Time		Date/Time	
Empty Kit Relinquished by:		Date/Time: 11/1/16 1637		Company: APC	
Relinquished by: Sarah Copeland		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 51-5		Cooler Temperature(s) °C and Other Remarks: 23.7°C	



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		Lab PM: Whitmire, Cheyenne R.		COC No: 400-56525-24537.1	
Sampler: Jason Rouss/Ben Rothschild		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 2 of 2	
Client Contact: Sarah Copeland		Phone: [Blank]		Job #: 400-129468	
Company: Alabama Power General Test Laboratory		Due Date Requested: [Blank]		Analysis Requested: [Blank]	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Preservation Codes: A- HCL M- Hexane B- NaOH N- None C- Zn Acetate O- AsNaO2 D- Nitric Acid P- Na2OAS 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 X- other (specify) Other: [Blank]	
PO #: 205-664-6121 (Tel)		WC #: [Blank]		Special Instructions/Note: [Blank]	
Email: sgcopole@southernmco.com		Project #: 40007143		Total Number of Containers: [Blank]	
CCR: [Blank]		SSOW#: [Blank]		Perform MS/MSD (Yes or No) [X] D	
Site: Gorgas Ash Pond (3)		Matrix (W=Water, S=Soil, O=Other, A=Air)		Field Filtered Sample (Yes or No) [X] D	
Sample Identification		Sample Date		Sample Time	
AW26960		10/24/16		1420	
AW26961		10/25/16		1155	
AW26962		10/25/16		1215	
AW26963		10/25/16		1605	
AW26964		10/25/16		1640	
AW26965		10/24/16		1625	
AW26966		10/24/16		1632	
AW26967		10/25/16		1053	
AW26968		10/25/16		1349	
AW26969		10/25/16		1512	
AW26970		10/25/16		1550	
Possible Hazard Identification		Sample Type (C=Comp, G=grab)		Preservation Code	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		G		Water	
Deliverable Requested: I, II, III, IV, Other (specify)		G		Water	
Empty Kit Relinquished by:		G		Water	
Relinquished by: Sarah Copeland		G		Water	
Relinquished by:		G		Water	
Relinquished by:		G		Water	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		G		Water	
Custody Seal No.:		G		Water	
Cooler Temperature(s) °C and Other Remarks: 23.7°C JAS		G		Water	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		G		Water	
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		G		Water	
Special Instructions/QC Requirements:		G		Water	
Method of Shipment:		G		Water	
Received by: [Signature]		G		Water	
Date/Time: 11-1-16 1652		G		Water	
Received by:		G		Water	
Date/Time:		G		Water	
Received by:		G		Water	
Date/Time:		G		Water	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-129468-1
SDG Number: Gorgas Ash Pond (3)

Login Number: 129468

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	23.7°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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
 SDG: Gorgas Ash Pond (3)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-129468-1
SDG: Gorgas Ash Pond (3)

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.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1065
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:

Case Narrative



Anions

Gorgas Ash Pond

WMWGORAP_1065

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW30304	583567	583568	583569	WMWGORAP_1065
AW30305	583567	583568	583569	WMWGORAP_1065
AW30306	583567	583568	583569	WMWGORAP_1065
AW30307	583567	583568	583569	WMWGORAP_1065
AW30308	583567	583568	583569	WMWGORAP_1065
AW30309	583567	583568	583569	WMWGORAP_1065
AW30310	583567	583568	583569	WMWGORAP_1065
AW30311	583567	583568	583569	WMWGORAP_1065
AW30312	583567	583568	583569	WMWGORAP_1065
AW30313	583567	583568	583569	WMWGORAP_1065
AW30320	583698	583700	583702	WMWGORAP_1065
AW30321	583698	583700	583702	WMWGORAP_1065
AW30322	583698	583700	583702	WMWGORAP_1065
AW30323	583698	583700	583702	WMWGORAP_1065
AW30324	583698	583700	583702	WMWGORAP_1065
AW30325	583698	583700	583702	WMWGORAP_1065
AW30326	583698	583700	583702	WMWGORAP_1065
AW30327	583698	583700	583702	WMWGORAP_1065
AW30395	583698	583700	583702	WMWGORAP_1065
AW30396	583698	583700	583702	WMWGORAP_1065
AW30397	583699	583701	583703	WMWGORAP_1065

4. All of the above samples were analyzed and prepared by EPA 300.0.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exceptions:
 1. The blank for anion sulfate in batch 583569 presented a negative concentration greater than the MDL of 0.3, at -0.551 mg/L. Three batch samples (AW30311, AW30312 and AW30313) presented sulfate concentrations (0.217, -0.554 and -0.553, respectively) below 10x the absolute value of the sulfate blank, and should be considered as quantitatively estimated non-detect concentrations, with the potential for low bias on the reported RL value. One batch sample (AW30308) presented a positive sulfate concentration (3.19 mg/L) above the RL but below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated concentration, with the potential for low bias on the reported result.
 2. The blank for anion sulfate in batch 583702 presented a negative concentration greater than the MDL of 0.3, at -0.553 mg/L. One batch sample (AW30396) presented a sulfate concentration (-0.556) below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value. One batch sample (AW30323) presented a positive sulfate concentration (3.21 mg/L) above the RL but below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated concentration, with the potential for low bias on the reported result.
- All laboratory fortified blanks (LFB) were within acceptance criteria for the anions requested, with the following exceptions:
 1. No closing LFB was listed or run for the dilution run for sulfate in batch 583569. The sulfate dilution result for sample AW30306 should be considered as a quantitatively estimated concentration, with indeterminate bias direction and magnitude.
 2. The closing LFB for anion fluoride in batch 583700 recovered below the lower limit of 90% (at 81%). All batch samples for fluoride (AW30320 - AW30327, inclusive, AW30395 and AW30396) should be considered as quantitatively estimated concentrations, with indication of potential low bias on the reported result values.
 3. The opening and closing LFB for anion fluoride in batch 583701 recovered below the lower limit of 90% (at 81% and 78%). The batch sample for fluoride (AW30397) should be considered as a quantitatively estimated concentration, with indication of potential low bias on the reported result value.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.



Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met. It is noted that the LFM for sulfate in batch 583702 was diluted prior to spiking, and the diluted LFM sample was spiked at 10x normal concentration, with acceptable recovery.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. Sample AW30321 was re-analyzed for chloride and sulfate at a 20x dilution, samples AW30306, AW30320 & AW30327 were re-analyzed for sulfate at a 10x dilution, due to the undiluted result exceeding the calibrated range of the detector. The dilution result for these samples should be used; reporting limit (RL) values are adjusted upward to reflect the dilution factor applied. The chloride result (25.3 mg/L) for batch sample AW30397 was slightly above the calibrated range of the detector (25.0 mg/L); the reported chloride result for this sample should be considered as a quantitatively estimated value, with indeterminate bias direction.

<u>Sample ID</u>		<u>Analyte</u>		<u>Dilution Factor</u>
AW30306		Sulfate		10X
AW30320		Sulfate		10X
AW30321		Chloride		20X
AW30321		Sulfate		20X
AW30327		Sulfate		10X

8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
 The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1065

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW30304	20170111	WMWGORAP_1065
AW30305	20170111	WMWGORAP_1065
AW30306	20170111	WMWGORAP_1065
AW30307	20170111	WMWGORAP_1065
AW30308	20170111	WMWGORAP_1065
AW30309	20170111	WMWGORAP_1065
AW30310	20170111	WMWGORAP_1065
AW30311	20170111	WMWGORAP_1065
AW30312	20170111	WMWGORAP_1065
AW30313	20170120_20170124	WMWGORAP_1065
AW30320	20170120_20170124	WMWGORAP_1065
AW30321	20170120_20170124_20170503A	WMWGORAP_1065
AW30322	20170120_20170124	WMWGORAP_1065
AW30323	20170120_20170124	WMWGORAP_1065
AW30324	20170120_20170124_20170503A_20170512F	WMWGORAP_1065
AW30325	20170120_20170124_20170503A_20170512F	WMWGORAP_1065
AW30326	20170120_20170124	WMWGORAP_1065
AW30327	20170120_20170124	WMWGORAP_1065
AW30395	20170120_20170124	WMWGORAP_1065
AW30396	20170120A_20170124_20170503A_20170512F	WMWGORAP_1065
AW30397	20170120A_20170124_20170503A_20170512F	WMWGORAP_1065

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes except for the monitoring lithium CCV in samples AW30324, AW30325, AW30396, & AW30397. These samples were reanalyzed and reported with passing CCVs.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.
-

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC. Sample AW30321 dilution confirmation for Calcium was not analyzed or reported with a matrix spike and matrix spike duplicate.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution in batch 20170111 with the following exceptions: AW30304, AW30305, AW30306 & AW30310 were diluted for Calcium at 10X due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve. All samples in batches 20170120 & 20170120A were analyzed at a dilution of 1 to 4 (4X dilution) to compensate for any matrix effects with the following exceptions: AW30324, AW30325, AW30396 and AW30397 were reanalyzed at a dilution of 1 to 2 for Lithium only (2X dilution) to compensate for any matrix effects. Sample AW30321 was diluted for Calcium due to sample concentrations from the 4x analysis were over the high standard of the calibration curve.



<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW30304	Calcium	10X
AW30305	Calcium	10X
AW30306	Calcium	10X
AW30310	Calcium	10X
AW30321	Calcium	10X

8. The raw data results include results corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1065

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW30304	583632	WMWGORAP_1065
AW30305	583632	WMWGORAP_1065
AW30306	583632	WMWGORAP_1065
AW30307	583632	WMWGORAP_1065
AW30308	583632	WMWGORAP_1065
AW30309	583632	WMWGORAP_1065
AW30310	583632	WMWGORAP_1065
AW30311	583632	WMWGORAP_1065
AW30312	583632	WMWGORAP_1065
AW30313	583632	WMWGORAP_1065
AW30320	583633	WMWGORAP_1065
AW30321	583633	WMWGORAP_1065
AW30322	583633	WMWGORAP_1065
AW30323	583633	WMWGORAP_1065
AW30324	583633	WMWGORAP_1065
AW30325	583633	WMWGORAP_1065
AW30326	583633	WMWGORAP_1065
AW30327	583633	WMWGORAP_1065
AW30395	583633	WMWGORAP_1065
AW30396	583633	WMWGORAP_1065
AW30397	583634	WMWGORAP_1065

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1065

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AW30304	583730	WMWGORAP_1065
AW30305	583730	WMWGORAP_1065
AW30306	583730	WMWGORAP_1065
AW30307	583730	WMWGORAP_1065
AW30308	583730	WMWGORAP_1065
AW30309	583730	WMWGORAP_1065
AW30310	583730	WMWGORAP_1065
AW30311	583730	WMWGORAP_1065
AW30312	583730	WMWGORAP_1065
AW30313	583730	WMWGORAP_1065
AW30320	583731	WMWGORAP_1065
AW30321	583731	WMWGORAP_1065
AW30322	583731	WMWGORAP_1065
AW30323	583731	WMWGORAP_1065
AW30324	583731	WMWGORAP_1065
AW30325	583731	WMWGORAP_1065
AW30326	583731	WMWGORAP_1065
AW30327	583731	WMWGORAP_1065
AW30395	583731	WMWGORAP_1065
AW30396	583731	WMWGORAP_1065
AW30397	583732	WMWGORAP_1065

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory except for the LCS tied to samples AW30304-313. The LCS response signal was still rising during the read time.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1065

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW30304	583662	WMWGORAP_1065
AW30305	583662	WMWGORAP_1065
AW30306	583662	WMWGORAP_1065
AW30307	583662	WMWGORAP_1065
AW30308	583662	WMWGORAP_1065
AW30309	583662	WMWGORAP_1065
AW30310	583662	WMWGORAP_1065
AW30311	583662	WMWGORAP_1065
AW30312	583662	WMWGORAP_1065
AW30313	583662	WMWGORAP_1065
AW30320	583663	WMWGORAP_1065
AW30321	583663	WMWGORAP_1065
AW30322	583663	WMWGORAP_1065
AW30323	583663	WMWGORAP_1065
AW30324	583663	WMWGORAP_1065
AW30325	583663	WMWGORAP_1065
AW30326	583663	WMWGORAP_1065
AW30327	583663	WMWGORAP_1065
AW30395	583664	WMWGORAP_1065
AW30396	583664	WMWGORAP_1065
AW30397	583664	WMWGORAP_1065

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of: AW30312, AW30313 & AW30396 which were <2.5 mg.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW30304

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.00104	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.0611	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.789	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	1.09	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		10	1.0	5.0	54.3	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	0.220	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00467	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	291	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	5.46	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.043	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	50.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW30304

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AW30304

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6D Dup

Laboratory ID Number: AW30305

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000802	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.0594	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.811	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	1.08	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		10	1.0	5.0	55.2	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	0.213	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00440	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	291	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	5.46	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.043	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	50.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6D Dup

Laboratory ID Number: AW30305

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6D Dup

Laboratory ID Number: AW30305

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW30306

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000727	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.0106	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.276	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	1.24	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		10	1.0	5.0	66.5	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00212	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00214	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	491	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	21.1	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.034	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		10	3.0	10	249	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW30306

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AW30306

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW30307

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.00072	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	J 0.00243	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0472	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	J 0.0875	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		1	0.1	0.5	5.50	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	J 0.0296	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0189	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		50	466	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	12.2	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.140	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	31.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW30307

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AW30307

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW30308

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000670	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0241	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		1	0.1	0.5	5.86	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	101	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	3.21	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.045	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	3.18	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW30308

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AW30308

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW30309

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000633	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.314	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	J 0.0258	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		1	0.1	0.5	33.1	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	J 0.0361	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	211	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	2.53	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.035	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	12.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW30309

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AW30309

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW30310

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000613	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.374	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	J 0.0285	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		10	1.0	5.0	44.0	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	J 0.0312	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00703	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	255	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	6.16	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	J 0.188	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	7.40	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW30310

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AW30310

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW30311

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0758	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	J 0.0965	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		1	0.1	0.5	0.714	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	J 0.0483	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	381	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	5.70	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	1.19	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW30311

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AW30311

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW30312

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/11/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/11/2017	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/11/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW30312

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30312 Calcium, Total	mg/L	0.0000934	0.22	5.00	5.07	5.09	4.51	4.25 to 5.75	101	70 to 130	0.427	20	
AW30312 Boron, Total	mg/L	-0.00153	0.044	1.00	1.01	1.02	0.990	0.85 to 1.15	101	70 to 130	0.312	20	
AW30312 Lithium, Total	mg/L	-0.000142	0.022	0.20	0.209	0.210	0.189	0.17 to 0.23	105	70 to 130	0.528	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW30312

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report
 Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW30313

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	12/14/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	12/14/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	12/14/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW30313

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30313 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.0947	0.0984	0.0989	0.085 to 0.115	94.7	70 to 130	3.86	20	
AW30313 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0921	0.0949	0.0957	0.085 to 0.115	92.1	70 to 130	3.03	20	
AW30313 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.0978	0.101	0.100	0.085 to 0.115	97.8	70 to 130	3.23	20	
AW30313 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0892	0.0940	0.0879	0.085 to 0.115	89.2	70 to 130	5.24	20	
AW30313 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.106	0.111	0.112	0.085 to 0.115	106	70 to 130	3.95	20	
AW30313 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.0954	0.101	0.105	0.085 to 0.115	95.4	70 to 130	5.66	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30313 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.0947	0.0984	0.104	0.085 to 0.115	94.7	70 to 130	3.85	20	
AW30313 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.0987	0.101	0.102	0.085 to 0.115	98.7	70 to 130	2.11	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30313 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.0950	0.0989	0.0996	0.085 to 0.115	95.0	70 to 130	3.99	20	
AW30313 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0907	0.0944	0.0881	0.085 to 0.115	90.7	70 to 130	3.95	20	
AW30313 Mercury, Total by CVAA	mg/L	0.0000320	0.0005	0.004	0.00377	0.00388	0.00367	0.0034 to 0.0046	94.2	70 to 130	2.93	20	
AW30313 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0922	0.0947	0.0906	0.085 to 0.115	92.2	70 to 130	2.70	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AW30313

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30311	Solids, Dissolved	mg/L	-5.0	25			379	52.0	40 to 60			0.263	5
AW30313	Sulfate, Total	mg/L	-0.551	1.0	20.00	20.3	-0.553	20.4	18 to 22	102	80 to 120	0	20
AW30313	Chloride, Total	mg/L	0.000	0.25	10.00	10.4	0.000	9.99	9 to 11	104	80 to 120	0	20
AW30313	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	2.08	1.8 to 2.2	98.0	80 to 120	0	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW30320

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000891	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.181	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0737	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	1.38	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	15.0	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	0.146	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.140	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	353	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	4.06	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.010	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		10	3.0	10	141	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW30320

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AW30320

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30327	Solids, Dissolved	mg/L	-5.0	25			442	52.0	40 to 60			0.113	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW30321

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.0659	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0772	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	1.82	mg/L
* Calcium, Total	HRG	5/3/2017	EPA 200.7		10	1.0	5.0	204	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	J 0.284	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0431	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		100	1260	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		20	0.80	5.00	36.0	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.206	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		20	6.0	20	755	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW30321

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	
AW30321 Calcium, Total	mg/L	0.00308	0.22				4.94	4.25 to 5.75		70 to 130		20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 12-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AW30321

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW30327	Solids, Dissolved	mg/L	-5.0	25				442	52.0	40 to 60			0.113	5
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9		2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70		0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359		155	21.0	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW30322

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.220	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	J 0.0362	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	41.4	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	J 0.0138	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	227	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	4.84	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.040	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	21.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW30322

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AW30322

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW30327	Solids, Dissolved	mg/L	-5.0	25				442	52.0	40 to 60			0.113	5
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9		2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70		0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359		155	21.0	18 to 22	102	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW30323

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000681	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.0538	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.115	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	0.294	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	29.4	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	J 0.0260	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00411	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	424	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	10.4	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	0.545	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	3.21	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW30323

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AW30323

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW30327	Solids, Dissolved	mg/L	-5.0	25			442	52.0	40 to 60			0.113	5
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW30324

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.184	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	43.1	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	5/12/2017	EPA 200.7		2	0.01	0.05	J 0.0116	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	211	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	2.93	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.072	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	11.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW30324

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30325 Lithium, Total	mg/L	-0.0000374	0.022	0.20	0.247	0.243	0.205	0.17 to 0.23	118	70 to 130	1.62	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AW30324

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW30327	Solids, Dissolved	mg/L	-5.0	25			442	52.0	40 to 60			0.113	5
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW30325

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.185	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	41.2	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	5/12/2017	EPA 200.7		2	0.01	0.05	J 0.0115	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	213	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	2.97	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.075	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	11.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW30325

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB	Rec		Prec	Limit
			Limit	Spike					Limit	Rec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20
AW30325 Lithium, Total	mg/L	-0.0000374	0.022	0.20	0.247	0.243	0.205	0.17 to 0.23	118	70 to 130	1.62	20
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AW30325

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW30327	Solids, Dissolved	mg/L	-5.0	25				442	52.0	40 to 60			0.113	5
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359		155	21.0	18 to 22	102	80 to 120	0.00	20
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9		2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70		0.048		1.8 to 2.2	82.6	80 to 120	2.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW30326

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	J 0.00186	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.276	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	35.9	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	J 0.0281	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	207	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	5.10	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.058	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	10.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW30326

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AW30326

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Solids, Dissolved	mg/L	-5.0	25			442	52.0	40 to 60			0.113	5
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW30327

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.00535	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0268	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	0.143	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	70.1	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	0.0693	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	J 0.00467	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	441	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	2.05	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.049	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		10	3.0	10	155	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW30327

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 13-Dec-16
 Customer ID:
 Delivery Date: 14-Dec-16

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AW30327

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW30327	Solids, Dissolved	mg/L	-5.0	25			442	52.0	40 to 60			0.113	5
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW30395

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.000858	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	0.0110	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.222	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	J 0.0914	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	11.9	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/20/2017	EPA 200.7		4	0.01	0.05	0.136	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0604	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	387	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	6.94	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	0.510	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	40.9	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW30395

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30395 Boron, Total	mg/L	0.000983	0.044	1.00	1.05	1.02	0.946	0.85 to 1.15	95.5	70 to 130	2.88	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30395 Calcium, Total	mg/L	-0.00654	0.22	5.00	17.3	16.6	4.57	4.25 to 5.75	107	70 to 130	4.01	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30395 Lithium, Total	mg/L	0.000395	0.022	0.20	0.359	0.336	0.181	0.17 to 0.23	111	70 to 130	6.58	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AW30395

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30397	Solids, Dissolved	mg/L	-1.0	25			355	47.0	40 to 60			0.424	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW30396

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	5/12/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW30396

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30396 Barium, Total	mg/L	0.0000168	0.0044	0.10	0.0982	0.102	0.0957	0.085 to 0.115	98.2	70 to 130	4.07	20	
AW30396 Beryllium, Total	mg/L	0.0000161	0.00132	0.10	0.113	0.117	0.112	0.085 to 0.115	113	70 to 130	3.79	20	
AW30396 Antimony, Total	mg/L	0.000190	0.00132	0.10	0.0911	0.0950	0.0879	0.085 to 0.115	91.1	70 to 130	4.21	20	
AW30396 Mercury, Total by CVAA	mg/L	0.00000182	0.0005	0.004	0.00374	0.00383	0.00380	0.0034 to 0.0046	93.5	70 to 130	2.55	20	
AW30396 Chromium, Total	mg/L	0.0000134	0.0044	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	3.38	20	
AW30396 Cobalt, Total	mg/L	0.00000742	0.0044	0.10	0.0974	0.100	0.0881	0.085 to 0.115	97.4	70 to 130	3.14	20	
AW30397 Boron, Total	mg/L	-0.000670	0.044	1.00	1.02	0.993	0.958	0.85 to 1.15	93.3	70 to 130	3.20	20	
AW30396 Arsenic, Total	mg/L	0.0000207	0.0022	0.10	0.101	0.105	0.104	0.085 to 0.115	101	70 to 130	4.03	20	
AW30396 Lead, Total	mg/L	0.0000125	0.0022	0.10	0.105	0.108	0.100	0.085 to 0.115	105	70 to 130	2.55	20	
AW30397 Calcium, Total	mg/L	-0.00488	0.22	5.00	8.45	8.08	4.74	4.25 to 5.75	99.0	70 to 130	4.44	20	
AW30325 Lithium, Total	mg/L	-0.0000374	0.022	0.20	0.247	0.243	0.205	0.17 to 0.23	118	70 to 130	1.62	20	
AW30396 Cadmium, Total	mg/L	0.00000947	0.00044	0.10	0.102	0.106	0.0996	0.085 to 0.115	102	70 to 130	3.62	20	
AW30396 Molybdenum, Total	mg/L	0.0000222	0.0044	0.10	0.0937	0.0994	0.0906	0.085 to 0.115	93.7	70 to 130	5.82	20	
AW30396 Selenium, Total	mg/L	0.0000812	0.0044	0.10	0.102	0.108	0.105	0.085 to 0.115	102	70 to 130	5.28	20	
AW30396 Thallium, Total	mg/L	0.0000100	0.00044	0.10	0.105	0.108	0.102	0.085 to 0.115	105	70 to 130	2.64	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AW30396

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30327	Chloride, Total	mg/L	0.000	0.25	10.00	11.9	2.02	10.0	9 to 11	98.5	80 to 120	1.47	20
AW30327	Fluoride, Total	mg/L	0.000	0.3	2.00	1.70	0.048		1.8 to 2.2	82.6	80 to 120	2.06	20
AW30327	Sulfate, Total	mg/L	-0.553	1.0	200	359	155	21.0	18 to 22	102	80 to 120	0.00	20
AW30397	Solids, Dissolved	mg/L	-1.0	25			355	47.0	40 to 60			0.424	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report
 Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments:

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW30397

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/16/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	J 0.00119	mg/L
* Arsenic, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	J 0.00193	mg/L
* Barium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0494	mg/L
* Beryllium, Total	JHK	12/16/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/20/2017	EPA 200.7		4	0.0322	0.1	J 0.0920	mg/L
* Calcium, Total	HRG	1/20/2017	EPA 200.7		4	0.1	0.5	3.50	mg/L
* Cadmium, Total	JHK	12/16/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	12/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	5/12/2017	EPA 200.7		2	0.01	0.05	0.182	mg/L
* Molybdenum, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	0.0345	mg/L
* Lead, Total	JHK	12/16/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	12/16/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	12/16/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	12/16/2016	SM 2540C		1		25	352	mg/L
* Chloride, Total	SES	12/15/2016	EPA 300.0		1	0.04	0.25	25.3	mg/L
* Fluoride, Total	SES	12/15/2016	EPA 300.0		1	0.01	0.3	J 0.131	mg/L
* Sulfate, Total	SES	12/15/2016	EPA 300.0		1	0.3	1	11.5	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW30397

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW30397 Cobalt, Total	mg/L	0.00000672	0.0044	0.10	0.0953	0.0976	0.0914	0.085 to 0.115	95.3	70 to 130	2.38	20	
AW30397 Beryllium, Total	mg/L	-0.0000181	0.00132	0.10	0.110	0.108	0.103	0.085 to 0.115	110	70 to 130	1.96	20	
AW30397 Boron, Total	mg/L	-0.000670	0.044	1.00	1.02	0.993	0.958	0.85 to 1.15	93.3	70 to 130	3.20	20	
AW30397 Cadmium, Total	mg/L	0.00000671	0.00044	0.10	0.0975	0.102	0.0981	0.085 to 0.115	97.5	70 to 130	4.10	20	
AW30397 Chromium, Total	mg/L	0.0000111	0.0044	0.10	0.0888	0.0933	0.0979	0.085 to 0.115	88.8	70 to 130	4.94	20	
AW30397 Calcium, Total	mg/L	-0.00488	0.22	5.00	8.45	8.08	4.74	4.25 to 5.75	99.0	70 to 130	4.44	20	
AW30397 Mercury, Total by CVAA	mg/L	-0.000000362	0.0005	0.004	0.00382	0.00378	0.00378	0.0034 to 0.0046	95.5	70 to 130	0.950	20	
AW30397 Selenium, Total	mg/L	0.0000532	0.0044	0.10	0.0982	0.100	0.102	0.085 to 0.115	98.2	70 to 130	2.18	20	
AW30325 Lithium, Total	mg/L	-0.0000374	0.022	0.20	0.247	0.243	0.205	0.17 to 0.23	118	70 to 130	1.62	20	
AW30397 Arsenic, Total	mg/L	0.0000171	0.0022	0.10	0.0895	0.0951	0.0991	0.085 to 0.115	87.5	70 to 130	6.10	20	
AW30397 Barium, Total	mg/L	0.00000779	0.0044	0.10	0.144	0.146	0.0945	0.085 to 0.115	94.3	70 to 130	1.86	20	
AW30397 Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.128	0.134	0.0937	0.085 to 0.115	93.6	70 to 130	4.59	20	
AW30397 Antimony, Total	mg/L	0.000197	0.00132	0.10	0.0922	0.0950	0.0909	0.085 to 0.115	91.0	70 to 130	3.04	20	
AW30397 Lead, Total	mg/L	0.0000169	0.0022	0.10	0.102	0.106	0.0989	0.085 to 0.115	102	70 to 130	4.25	20	
AW30397 Thallium, Total	mg/L	0.00000921	0.00044	0.10	0.102	0.106	0.101	0.085 to 0.115	102	70 to 130	3.61	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 14-Dec-16
 Customer ID:
 Delivery Date: 15-Dec-16

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AW30397

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW30397	Fluoride, Total	mg/L	0.000	0.3	2.00	1.80	0.132		1.8 to 2.2	83.4	80 to 120	0.760	20
AW30397	Solids, Dissolved	mg/L	-1.0	25			355	47.0	40 to 60			0.424	5
AW30397	Chloride, Total	mg/L	0.000	0.25	10.00	33.8	25.3	10.0	9 to 11	85.0	80 to 120	0.00	20
AW30397	Sulfate, Total	mg/L	0.000	1.0	20.00	31.0	11.5	20.6	18 to 22	97.5	80 to 120	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments:

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 12/14/2016 08:00

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6D	12/12/2016	13:19	3	Groundwater		AW30304
MW-6D Dup	12/12/2016	13:19	3	Sample Duplicate		AW30305
MW-6S	12/12/2016	14:16	3	Groundwater		AW30306
MW-17	12/13/2016	10:10	3	Groundwater		AW30307
MW-8	12/13/2016	12:55	3	Groundwater		AW30308

Relinquished By	Received By	Date/Time
		12/13/2016 14:52
	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.12.14 08:26:32 -06'00'</small>	12/14/2016 08:26

SmarTroll ID 4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp 2.7 degrees C Thermometer ID 5408-27568-2-2 pH Strip ID 5521-28269-20-13
Turbidity ID 4677-23342-4-1	



Chain of Custody Groundwater

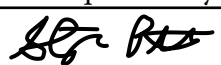
APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 12/14/2016 08:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, John Pugh, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Nick Pitts"/>	Location	<input type="text" value="Gorgas Ash Pond"/>
Analysis Requested	<input type="text" value="Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle"/>		
Comments	<input type="text" value="Rad Dup on MW-19"/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16D	12/13/2016	10:07	3	Groundwater		AW30309
MW-19	12/13/2016	12:10	5	Groundwater		AW30310
MW-2	12/13/2016	13:38	3	Groundwater		AW30311
FB-1	12/13/2016	14:05	3	Field Blank		AW30312
EB-1	12/13/2016	14:45	3	Equipment Blank		AW30313

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.12.14 08:28:42 -06'00'</small>	12/14/2016 08:28

SmarTroll ID	<input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	<input type="text" value="3901-20009-2-1"/>	Cooler Temp	<input type="text" value="2.7 degrees C"/>
		Thermometer ID	<input type="text" value="5408-27568-2-2"/>
		pH Strip ID	<input type="text" value="5521-28269-20-13"/>



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA

Requested Complete Date
 Site Representative
 Collector

Results To
 Requested By
 Location

Analysis Requested
 Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	12/12/2016	14:11	3	Groundwater		AW30320
MW-18	12/12/2016	15:43	5	Groundwater		AW30321
MW-11	12/13/2016	09:15	3	Groundwater		AW30322
MW-12	12/13/2016	11:28	3	Groundwater		AW30323
MW-13	12/13/2016	12:22	3	Groundwater		AW30324
MW-13DUP	12/13/2016	12:22	3	Sample Duplicate		AW30325
MW-14	12/13/2016	13:48	3	Groundwater		AW30326
MW-9	12/13/2016	15:23	3	Groundwater		AW30327

Relinquished By <i>Anthony Goggins</i>	Received By <i>Greg Dyer</i>	Date/Time 12/14/2016 09:20

SmarTroll ID
 Turbidity ID

All metals and radiological bottles have pH < 2
 Cooler Temp
 Thermometer ID
 pH Strip ID



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 12/15/2016 08:45

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	12/14/2016	13:27	3	Groundwater		AW30395
FB-2	12/14/2016	13:50	3	Field Blank		AW30396
MW-21	12/14/2016	16:00	3	Groundwater		AW30397

Relinquished By	Received By	Date/Time
	Keith Kornegay <small>Digitally signed by Keith Kornegay DN: cn=Keith Kornegay, o=Alabama Power, ou, email=kkorneg@alabamapower.com, c=US Date: 2016.12.15 14:05:36 -06'00'</small>	12/15/2016 09:00

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	Cooler Temp
		0.1 degrees C
		Thermometer ID
		4303-21829-1-1
		pH Strip ID
		5521-28257-20-1

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: 400-131905-1

TestAmerica Sample Delivery Group: Ash Pond (4)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

2/3/2017 5:47:43 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	27
Chronicle	28
QC Association	34
QC Sample Results	36
Chain of Custody	40
Receipt Checklists	42
Certification Summary	43

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

Job ID: 400-131905-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-131905-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-285710: The following sample was prepared at a reduced aliquot due to limited volume: AW30395 MW-15 (400-131905-19).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-285694: The following sample was prepared at a reduced aliquot due to limited volume: AW30395 MW-15 (400-131905-19).

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-131905-1	AW30304 MW-6D	Water	12/12/16 13:19	12/21/16 16:30
400-131905-2	AW30305 MW-6D DUP	Water	12/12/16 13:19	12/21/16 16:30
400-131905-3	AW30306 MW-6S	Water	12/12/16 14:16	12/21/16 16:30
400-131905-4	AW30307 MW-17	Water	12/13/16 10:10	12/21/16 16:30
400-131905-5	AW30308 MW-8	Water	12/13/16 12:55	12/21/16 16:30
400-131905-6	AW30309 MW-16D	Water	12/13/16 10:07	12/21/16 16:30
400-131905-7	AW30310 MW-19	Water	12/13/16 12:10	12/21/16 16:30
400-131905-8	AW30311 MW-2	Water	12/13/16 13:38	12/21/16 16:30
400-131905-9	AW30312 FB-1	Water	12/13/16 14:05	12/21/16 16:30
400-131905-10	AW30313 EB-1	Water	12/13/16 14:45	12/21/16 16:30
400-131905-11	AW30320 MW-7	Water	12/12/16 14:11	12/21/16 16:30
400-131905-12	AW30321 MW-18	Water	12/12/16 15:43	12/21/16 16:30
400-131905-13	AW30322 MW-11	Water	12/13/16 09:15	12/21/16 16:30
400-131905-14	AW30323 MW-12	Water	12/13/16 11:28	12/21/16 16:30
400-131905-15	AW30324 MW-13	Water	12/13/16 12:22	12/21/16 16:30
400-131905-16	AW30325 MW-13 DUP	Water	12/13/16 12:22	12/21/16 16:30
400-131905-17	AW30326 MW-14	Water	12/13/16 13:48	12/21/16 16:30
400-131905-18	AW30327 MW-9	Water	12/13/16 15:23	12/21/16 16:30
400-131905-19	AW30395 MW-15	Water	12/14/16 13:27	12/21/16 16:30
400-131905-20	AW30396 FB-2	Water	12/14/16 13:50	12/21/16 16:30
400-131905-21	AW30397 MW-21	Water	12/14/16 16:00	12/21/16 16:30

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30304 MW-6D

Lab Sample ID: 400-131905-1

Date Collected: 12/12/16 13:19

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.634		0.337	0.342	1.00	0.407	pCi/L	12/28/16 10:41	01/31/17 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					12/28/16 10:41	01/31/17 15:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.623		0.350	0.355	1.00	0.523	pCi/L	12/28/16 12:32	01/31/17 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					12/28/16 12:32	01/31/17 13:03	1
Y Carrier	66.9		40 - 110					12/28/16 12:32	01/31/17 13:03	1

Method: Ra226_Ra228 - Combined Radium-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		0.486	0.493	5.00	0.523	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30305 MW-6D DUP

Lab Sample ID: 400-131905-2

Date Collected: 12/12/16 13:19

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.537		0.316	0.319	1.00	0.412	pCi/L	12/28/16 10:41	01/31/17 15:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					12/28/16 10:41	01/31/17 15:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.546	U	0.371	0.374	1.00	0.579	pCi/L	12/28/16 12:32	01/31/17 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.0		40 - 110					12/28/16 12:32	01/31/17 13:03	1
Y Carrier	68.0		40 - 110					12/28/16 12:32	01/31/17 13:03	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.487	0.492	5.00	0.579	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30306 MW-6S

Lab Sample ID: 400-131905-3

Date Collected: 12/12/16 14:16

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.736		0.381	0.387	1.00	0.458	pCi/L	12/28/16 10:41	01/31/17 15:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		40 - 110					12/28/16 10:41	01/31/17 15:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.625		0.360	0.365	1.00	0.541	pCi/L	12/28/16 12:32	01/31/17 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		40 - 110					12/28/16 12:32	01/31/17 13:03	1
Y Carrier	70.7		40 - 110					12/28/16 12:32	01/31/17 13:03	1

Method: Ra226_Ra228 - Combined Radium-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		0.524	0.532	5.00	0.541	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30307 MW-17

Lab Sample ID: 400-131905-4

Date Collected: 12/13/16 10:10

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.322	U	0.316	0.317	1.00	0.496	pCi/L	12/28/16 10:41	01/31/17 15:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					12/28/16 10:41	01/31/17 15:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.292	U	0.314	0.315	1.00	0.514	pCi/L	12/28/16 12:32	01/31/17 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					12/28/16 12:32	01/31/17 13:03	1
Y Carrier	72.1		40 - 110					12/28/16 12:32	01/31/17 13:03	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.614		0.446	0.447	5.00	0.514	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30308 MW-8

Lab Sample ID: 400-131905-5

Date Collected: 12/13/16 12:55

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0657	U	0.241	0.241	1.00	0.459	pCi/L	12/28/16 10:41	01/31/17 15:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					12/28/16 10:41	01/31/17 15:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.481		0.293	0.296	1.00	0.443	pCi/L	12/28/16 12:32	01/31/17 13:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					12/28/16 12:32	01/31/17 13:03	1
Y Carrier	72.1		40 - 110					12/28/16 12:32	01/31/17 13:03	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.547		0.379	0.382	5.00	0.459	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30309 MW-16D

Lab Sample ID: 400-131905-6

Date Collected: 12/13/16 10:07

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.164	U	0.272	0.272	1.00	0.472	pCi/L	12/28/16 10:41	01/31/17 15:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/28/16 10:41	01/31/17 15:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.144	U	0.279	0.279	1.00	0.476	pCi/L	12/28/16 12:32	01/31/17 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/28/16 12:32	01/31/17 13:02	1
Y Carrier	69.9		40 - 110					12/28/16 12:32	01/31/17 13:02	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	0.309	U	0.389	0.390	5.00	0.476	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30310 MW-19

Lab Sample ID: 400-131905-7

Date Collected: 12/13/16 12:10

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.320	U	0.268	0.269	1.00	0.394	pCi/L	12/28/16 10:41	01/31/17 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/28/16 10:41	01/31/17 17:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.438	U	0.306	0.308	1.00	0.475	pCi/L	12/28/16 12:32	01/31/17 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/28/16 12:32	01/31/17 13:02	1
Y Carrier	69.5		40 - 110					12/28/16 12:32	01/31/17 13:02	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	0.758		0.406	0.409	5.00	0.475	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30311 MW-2

Lab Sample ID: 400-131905-8

Date Collected: 12/13/16 13:38

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192	U	0.278	0.279	1.00	0.474	pCi/L	12/28/16 10:41	01/31/17 17:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					12/28/16 10:41	01/31/17 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	0.541	U	0.364	0.368	1.00	0.566	pCi/L	12/28/16 12:32	01/31/17 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					12/28/16 12:32	01/31/17 13:02	1
Y Carrier	72.1		40 - 110					12/28/16 12:32	01/31/17 13:02	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	0.733		0.458	0.461	5.00	0.566	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30312 FB-1

Lab Sample ID: 400-131905-9

Date Collected: 12/13/16 14:05

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.183	U	0.262	0.263	1.00	0.446	pCi/L	12/28/16 10:41	01/31/17 17:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					12/28/16 10:41	01/31/17 17:15	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		0.333	0.339	1.00	0.489	pCi/L	12/28/16 12:32	01/31/17 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					12/28/16 12:32	01/31/17 13:02	1
Y Carrier	70.7		40 - 110					12/28/16 12:32	01/31/17 13:02	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	0.873		0.424	0.429	5.00	0.489	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30313 EB-1

Lab Sample ID: 400-131905-10

Date Collected: 12/13/16 14:45

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00300	U	0.209	0.209	1.00	0.435	pCi/L	12/28/16 10:41	01/31/17 17:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		40 - 110					12/28/16 10:41	01/31/17 17:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.220	U	0.319	0.320	1.00	0.535	pCi/L	12/28/16 12:32	01/31/17 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		40 - 110					12/28/16 12:32	01/31/17 13:02	1
Y Carrier	71.8		40 - 110					12/28/16 12:32	01/31/17 13:02	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	0.217	U	0.382	0.382	5.00	0.535	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30320 MW-7

Lab Sample ID: 400-131905-11

Date Collected: 12/12/16 14:11

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.231	U	0.265	0.265	1.00	0.427	pCi/L	12/28/16 10:41	01/31/17 17:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/28/16 10:41	01/31/17 17:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.572		0.355	0.359	1.00	0.542	pCi/L	12/28/16 12:32	01/31/17 13:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/28/16 12:32	01/31/17 13:02	1
Y Carrier	71.4		40 - 110					12/28/16 12:32	01/31/17 13:02	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	0.803		0.443	0.446	5.00	0.542	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30321 MW-18

Lab Sample ID: 400-131905-12

Date Collected: 12/12/16 15:43

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.245	U	0.263	0.263	1.00	0.416	pCi/L	12/28/16 10:41	01/31/17 17:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.5		40 - 110					12/28/16 10:41	01/31/17 17:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.383	U	0.387	0.388	1.00	0.629	pCi/L	12/28/16 12:32	01/31/17 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.5		40 - 110					12/28/16 12:32	01/31/17 13:01	1
Y Carrier	68.0		40 - 110					12/28/16 12:32	01/31/17 13:01	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	0.628	U	0.467	0.469	5.00	0.629	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30322 MW-11

Lab Sample ID: 400-131905-13

Date Collected: 12/13/16 09:15

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0567	U	0.172	0.172	1.00	0.391	pCi/L	12/28/16 10:41	01/31/17 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/28/16 10:41	01/31/17 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.556		0.307	0.311	1.00	0.460	pCi/L	12/28/16 12:32	01/31/17 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					12/28/16 12:32	01/31/17 13:01	1
Y Carrier	74.0		40 - 110					12/28/16 12:32	01/31/17 13:01	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	0.499		0.352	0.356	5.00	0.460	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30323 MW-12

Lab Sample ID: 400-131905-14

Date Collected: 12/13/16 11:28

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.343	U	0.282	0.284	1.00	0.412	pCi/L	12/28/16 10:41	01/31/17 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					12/28/16 10:41	01/31/17 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.631		0.387	0.392	1.00	0.592	pCi/L	12/28/16 12:32	01/31/17 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					12/28/16 12:32	01/31/17 13:01	1
Y Carrier	66.9		40 - 110					12/28/16 12:32	01/31/17 13:01	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	0.974		0.479	0.484	5.00	0.592	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30324 MW-13

Lab Sample ID: 400-131905-15

Date Collected: 12/13/16 12:22

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0819	U	0.203	0.203	1.00	0.379	pCi/L	12/28/16 10:41	01/31/17 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					12/28/16 10:41	01/31/17 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.308	U	0.301	0.303	1.00	0.488	pCi/L	12/28/16 12:32	01/31/17 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.5		40 - 110					12/28/16 12:32	01/31/17 13:01	1
Y Carrier	72.5		40 - 110					12/28/16 12:32	01/31/17 13:01	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	0.390	U	0.363	0.364	5.00	0.488	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30325 MW-13 DUP

Lab Sample ID: 400-131905-16

Date Collected: 12/13/16 12:22

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.289	U	0.270	0.272	1.00	0.416	pCi/L	12/28/16 10:41	01/31/17 19:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					12/28/16 10:41	01/31/17 19:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.118	U	0.305	0.305	1.00	0.527	pCi/L	12/28/16 12:32	01/31/17 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.2		40 - 110					12/28/16 12:32	01/31/17 13:01	1
Y Carrier	71.0		40 - 110					12/28/16 12:32	01/31/17 13:01	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	0.407	U	0.407	0.408	5.00	0.527	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30326 MW-14

Lab Sample ID: 400-131905-17

Date Collected: 12/13/16 13:48

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.466		0.281	0.284	1.00	0.367	pCi/L	12/28/16 10:41	01/31/17 19:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					12/28/16 10:41	01/31/17 19:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.902		0.327	0.337	1.00	0.440	pCi/L	12/28/16 12:32	01/31/17 13:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					12/28/16 12:32	01/31/17 13:01	1
Y Carrier	71.0		40 - 110					12/28/16 12:32	01/31/17 13:01	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	1.37		0.431	0.441	5.00	0.440	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30327 MW-9

Lab Sample ID: 400-131905-18

Date Collected: 12/13/16 15:23

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.177	U	0.264	0.264	1.00	0.452	pCi/L	12/28/16 10:41	01/31/17 19:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					12/28/16 10:41	01/31/17 19:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.506	U	0.368	0.371	1.00	0.578	pCi/L	12/28/16 12:32	01/31/17 13:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					12/28/16 12:32	01/31/17 13:04	1
Y Carrier	72.1		40 - 110					12/28/16 12:32	01/31/17 13:04	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	0.683		0.453	0.455	5.00	0.578	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30395 MW-15

Lab Sample ID: 400-131905-19

Date Collected: 12/14/16 13:27

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192	U	0.295	0.296	1.00	0.509	pCi/L	12/28/16 10:41	01/31/17 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					12/28/16 10:41	01/31/17 19:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.496	U	0.408	0.410	1.00	0.648	pCi/L	12/28/16 12:32	01/31/17 13:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					12/28/16 12:32	01/31/17 13:04	1
Y Carrier	72.9		40 - 110					12/28/16 12:32	01/31/17 13:04	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	0.688		0.503	0.505	5.00	0.648	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30396 FB-2

Lab Sample ID: 400-131905-20

Date Collected: 12/14/16 13:50

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0563	U	0.154	0.154	1.00	0.359	pCi/L	12/28/16 07:37	01/27/17 09:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					12/28/16 07:37	01/27/17 09:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.255	U	0.318	0.319	1.00	0.527	pCi/L	12/28/16 08:06	01/26/17 16:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					12/28/16 08:06	01/26/17 16:46	1
Y Carrier	82.2		40 - 110					12/28/16 08:06	01/26/17 16:46	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	0.199	U	0.353	0.354	5.00	0.527	pCi/L		02/01/17 16:57	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30397 MW-21

Lab Sample ID: 400-131905-21

Date Collected: 12/14/16 16:00

Matrix: Water

Date Received: 12/21/16 16:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.640		0.317	0.322	1.00	0.348	pCi/L	12/28/16 07:37	01/27/17 09:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					12/28/16 07:37	01/27/17 09:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.309	0.311	1.00	0.491	pCi/L	12/28/16 08:06	01/26/17 16:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.4		40 - 110					12/28/16 08:06	01/26/17 16:46	1
Y Carrier	81.9		40 - 110					12/28/16 08:06	01/26/17 16:46	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	1.02		0.443	0.448	5.00	0.491	pCi/L		02/01/17 16:57	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

Client Sample ID: AW30304 MW-6D

Lab Sample ID: 400-131905-1

Date Collected: 12/12/16 13:19

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 15:33	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:03	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30305 MW-6D DUP

Lab Sample ID: 400-131905-2

Date Collected: 12/12/16 13:19

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290149	01/31/17 15:32	MLK	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:03	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30306 MW-6S

Lab Sample ID: 400-131905-3

Date Collected: 12/12/16 14:16

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 15:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:03	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30307 MW-17

Lab Sample ID: 400-131905-4

Date Collected: 12/13/16 10:10

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 15:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:03	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30308 MW-8

Lab Sample ID: 400-131905-5

Date Collected: 12/13/16 12:55

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 15:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:03	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30309 MW-16D

Lab Sample ID: 400-131905-6

Date Collected: 12/13/16 10:07

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 15:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30310 MW-19

Lab Sample ID: 400-131905-7

Date Collected: 12/13/16 12:10

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 17:15	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30311 MW-2

Lab Sample ID: 400-131905-8

Date Collected: 12/13/16 13:38

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 17:14	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30312 FB-1

Lab Sample ID: 400-131905-9

Date Collected: 12/13/16 14:05

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 17:15	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30313 EB-1

Lab Sample ID: 400-131905-10

Date Collected: 12/13/16 14:45

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 17:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30320 MW-7

Lab Sample ID: 400-131905-11

Date Collected: 12/12/16 14:11

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 17:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:02	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30321 MW-18

Lab Sample ID: 400-131905-12

Date Collected: 12/12/16 15:43

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 17:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30322 MW-11

Lab Sample ID: 400-131905-13

Date Collected: 12/13/16 09:15

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 19:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30323 MW-12

Lab Sample ID: 400-131905-14

Date Collected: 12/13/16 11:28

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 19:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30324 MW-13

Lab Sample ID: 400-131905-15

Date Collected: 12/13/16 12:22

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 19:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30325 MW-13 DUP

Lab Sample ID: 400-131905-16

Date Collected: 12/13/16 12:22

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290149	01/31/17 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Client Sample ID: AW30326 MW-14

Lab Sample ID: 400-131905-17

Date Collected: 12/13/16 13:48

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 19:12	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290148	01/31/17 13:01	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30327 MW-9

Lab Sample ID: 400-131905-18

Date Collected: 12/13/16 15:23

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290148	01/31/17 19:12	ALD	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290149	01/31/17 13:04	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30395 MW-15

Lab Sample ID: 400-131905-19

Date Collected: 12/14/16 13:27

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285694	12/28/16 10:41	AS	TAL SL
Total/NA	Analysis	9315		1	290147	01/31/17 19:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285710	12/28/16 12:32	AS	TAL SL
Total/NA	Analysis	9320		1	290149	01/31/17 13:04	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Client Sample ID: AW30396 FB-2

Lab Sample ID: 400-131905-20

Date Collected: 12/14/16 13:50

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285559	12/28/16 07:37	AS	TAL SL
Total/NA	Analysis	9315		1	289503	01/27/17 09:03	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285562	12/28/16 08:06	AS	TAL SL
Total/NA	Analysis	9320		1	289250	01/26/17 16:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

Client Sample ID: AW30397 MW-21

Lab Sample ID: 400-131905-21

Date Collected: 12/14/16 16:00

Matrix: Water

Date Received: 12/21/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			285559	12/28/16 07:37	AS	TAL SL
Total/NA	Analysis	9315		1	289503	01/27/17 09:04	KLS	TAL SL
Total/NA	Prep	PrecSep_0			285562	12/28/16 08:06	AS	TAL SL
Total/NA	Analysis	9320		1	289250	01/26/17 16:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	290628	02/01/17 16:57	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Rad

Prep Batch: 285559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131905-20	AW30396 FB-2	Total/NA	Water	PrecSep-21	
400-131905-21	AW30397 MW-21	Total/NA	Water	PrecSep-21	
MB 160-285559/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-285559/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-131652-C-13-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 285562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131905-20	AW30396 FB-2	Total/NA	Water	PrecSep_0	
400-131905-21	AW30397 MW-21	Total/NA	Water	PrecSep_0	
MB 160-285562/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-285562/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-131652-C-13-D DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 285694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131905-1	AW30304 MW-6D	Total/NA	Water	PrecSep-21	
400-131905-2	AW30305 MW-6D DUP	Total/NA	Water	PrecSep-21	
400-131905-3	AW30306 MW-6S	Total/NA	Water	PrecSep-21	
400-131905-4	AW30307 MW-17	Total/NA	Water	PrecSep-21	
400-131905-5	AW30308 MW-8	Total/NA	Water	PrecSep-21	
400-131905-6	AW30309 MW-16D	Total/NA	Water	PrecSep-21	
400-131905-7	AW30310 MW-19	Total/NA	Water	PrecSep-21	
400-131905-8	AW30311 MW-2	Total/NA	Water	PrecSep-21	
400-131905-9	AW30312 FB-1	Total/NA	Water	PrecSep-21	
400-131905-10	AW30313 EB-1	Total/NA	Water	PrecSep-21	
400-131905-11	AW30320 MW-7	Total/NA	Water	PrecSep-21	
400-131905-12	AW30321 MW-18	Total/NA	Water	PrecSep-21	
400-131905-13	AW30322 MW-11	Total/NA	Water	PrecSep-21	
400-131905-14	AW30323 MW-12	Total/NA	Water	PrecSep-21	
400-131905-15	AW30324 MW-13	Total/NA	Water	PrecSep-21	
400-131905-16	AW30325 MW-13 DUP	Total/NA	Water	PrecSep-21	
400-131905-17	AW30326 MW-14	Total/NA	Water	PrecSep-21	
400-131905-18	AW30327 MW-9	Total/NA	Water	PrecSep-21	
400-131905-19	AW30395 MW-15	Total/NA	Water	PrecSep-21	
MB 160-285694/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-285694/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-131905-7 DU	AW30310 MW-19	Total/NA	Water	PrecSep-21	
400-131905-12 DU	AW30321 MW-18	Total/NA	Water	PrecSep-21	

Prep Batch: 285710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131905-1	AW30304 MW-6D	Total/NA	Water	PrecSep_0	
400-131905-2	AW30305 MW-6D DUP	Total/NA	Water	PrecSep_0	
400-131905-3	AW30306 MW-6S	Total/NA	Water	PrecSep_0	
400-131905-4	AW30307 MW-17	Total/NA	Water	PrecSep_0	
400-131905-5	AW30308 MW-8	Total/NA	Water	PrecSep_0	
400-131905-6	AW30309 MW-16D	Total/NA	Water	PrecSep_0	
400-131905-7	AW30310 MW-19	Total/NA	Water	PrecSep_0	
400-131905-8	AW30311 MW-2	Total/NA	Water	PrecSep_0	
400-131905-9	AW30312 FB-1	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

Rad (Continued)

Prep Batch: 285710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-131905-10	AW30313 EB-1	Total/NA	Water	PrecSep_0	
400-131905-11	AW30320 MW-7	Total/NA	Water	PrecSep_0	
400-131905-12	AW30321 MW-18	Total/NA	Water	PrecSep_0	
400-131905-13	AW30322 MW-11	Total/NA	Water	PrecSep_0	
400-131905-14	AW30323 MW-12	Total/NA	Water	PrecSep_0	
400-131905-15	AW30324 MW-13	Total/NA	Water	PrecSep_0	
400-131905-16	AW30325 MW-13 DUP	Total/NA	Water	PrecSep_0	
400-131905-17	AW30326 MW-14	Total/NA	Water	PrecSep_0	
400-131905-18	AW30327 MW-9	Total/NA	Water	PrecSep_0	
400-131905-19	AW30395 MW-15	Total/NA	Water	PrecSep_0	
MB 160-285710/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-285710/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-131905-7 DU	AW30310 MW-19	Total/NA	Water	PrecSep_0	
400-131905-12 DU	AW30321 MW-18	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-28559/1-A
Matrix: Water
Analysis Batch: 289539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285559

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1320	U	0.225	0.225	1.00	0.395	pCi/L	12/28/16 07:37	01/27/17 06:57	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	73.5		40 - 110	12/28/16 07:37	01/27/17 06:57	1				

Lab Sample ID: LCS 160-28559/2-A
Matrix: Water
Analysis Batch: 289939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285559

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.09		1.57	1.00	0.221	pCi/L	127	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	72.4		40 - 110	12/28/16 07:37	01/27/17 06:57	1			

Lab Sample ID: 400-131652-C-13-B DU
Matrix: Water
Analysis Batch: 289539

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 285559

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	2.31		3.256		0.737	1.00	0.475	pCi/L	0.72	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	61.0		40 - 110	12/28/16 07:37	01/27/17 06:57	1				

Lab Sample ID: MB 160-285694/1-A
Matrix: Water
Analysis Batch: 290148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285694

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1687	U	0.243	0.244	1.00	0.415	pCi/L	12/28/16 10:41	01/31/17 15:32	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	86.3		40 - 110	12/28/16 10:41	01/31/17 15:32	1				

Lab Sample ID: LCS 160-285694/2-A
Matrix: Water
Analysis Batch: 290148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285694

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.1	14.15		1.81	1.00	0.390	pCi/L	127	68 - 137

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

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

Lab Sample ID: LCS 160-285694/2-A
Matrix: Water
Analysis Batch: 290148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285694

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.6		40 - 110

Lab Sample ID: 400-131905-7 DU
Matrix: Water
Analysis Batch: 290147

Client Sample ID: AW30310 MW-19
Prep Type: Total/NA
Prep Batch: 285694

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.320	U	0.5962		0.344	1.00	0.448	pCi/L	0.45	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	85.5		40 - 110

Lab Sample ID: 400-131905-12 DU
Matrix: Water
Analysis Batch: 290149

Client Sample ID: AW30321 MW-18
Prep Type: Total/NA
Prep Batch: 285694

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.245	U	0.008044	U	0.195	1.00	0.397	pCi/L	0.52	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.3		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-285562/1-A
Matrix: Water
Analysis Batch: 289248

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285562

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2059	U	0.292	0.293	1.00	0.555	pCi/L	12/28/16 08:06	01/26/17 16:53	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	73.5		40 - 110	12/28/16 08:06	01/26/17 16:53	1
Y Carrier	81.9		40 - 110	12/28/16 08:06	01/26/17 16:53	1

Lab Sample ID: LCS 160-285562/2-A
Matrix: Water
Analysis Batch: 289248

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285562

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.9	18.27		2.01	1.00	0.552	pCi/L	131	56 - 140

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-285562/2-A
Matrix: Water
Analysis Batch: 289248

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285562

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	72.4		40 - 110
Y Carrier	78.5		40 - 110

Lab Sample ID: 400-131652-C-13-D DU
Matrix: Water
Analysis Batch: 289248

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 285562

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.555		0.3023	U	0.353	1.00	0.580	pCi/L	0.37	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	61.0		40 - 110
Y Carrier	78.1		40 - 110

Lab Sample ID: MB 160-285710/1-A
Matrix: Water
Analysis Batch: 290148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285710

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1505	U	0.381	0.381	1.00	0.655	pCi/L	12/28/16 12:32	01/31/17 13:03	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110	12/28/16 12:32	01/31/17 13:03	1
Y Carrier	52.7		40 - 110	12/28/16 12:32	01/31/17 13:03	1

Lab Sample ID: LCS 160-285710/2-A
Matrix: Water
Analysis Batch: 290148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285710

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.9	18.06		1.95	1.00	0.464	pCi/L	130	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.6		40 - 110
Y Carrier	69.5		40 - 110

Lab Sample ID: 400-131905-7 DU
Matrix: Water
Analysis Batch: 290148

Client Sample ID: AW30310 MW-19
Prep Type: Total/NA
Prep Batch: 285710

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.438	U	0.2967	U	0.372	1.00	0.615	pCi/L	0.21	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-131905-7 DU
Matrix: Water
Analysis Batch: 290148

Client Sample ID: AW30310 MW-19
Prep Type: Total/NA
Prep Batch: 285710

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	85.5		40 - 110
Y Carrier	69.2		40 - 110

Lab Sample ID: 400-131905-12 DU
Matrix: Water
Analysis Batch: 290148

Client Sample ID: AW30321 MW-18
Prep Type: Total/NA
Prep Batch: 285710

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER
										Limit
Radium-228	0.383	U	0.3976	U	0.283	1.00	0.436	pCi/L	0.02	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	84.3		40 - 110
Y Carrier	73.3		40 - 110

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

Lab Sample ID: 400-131905-7 DU
Matrix: Water
Analysis Batch: 290628

Client Sample ID: AW30310 MW-19
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	0.758		0.8929		0.507	5.00	0.615	pCi/L	0.15	

Lab Sample ID: 400-131905-12 DU
Matrix: Water
Analysis Batch: 290628

Client Sample ID: AW30321 MW-18
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	0.628	U	0.4056	U	0.344	5.00	0.436	pCi/L	0.27	

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 Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopelal@southernco.com Project Name: CCR Site: (Gorgas Ash Pond (4))		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #:					
Due Date Requested: TAT Requested (days): Routine		Analysis Requested		Preservation Codes: A - HCL M - Hexane B - NaOH N - None O - AsNaO2 C - Zn Acetate P - Na2O4S D - Nitric Acid Q - NaHSO4 E - NaHSO4 F - MeOH R - Na2SO3 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=oil, G=gas, A=air)	Field Filtered Sample (Yes or No)	Performance (MSD Yes or No)	9315, Ra226, 9320, Ra228, Ra228Ra228, GPPC	Total Number of Containers	Special Instructions/Note:
AW30320	12/12/16	1411	G	Water	X			1	MMW-7
AW30321	12/12/16	1543	G	Water	Y			3	MMW-18
AW30322	12/13/16	0915	G	Water	X			1	MMW-11
AW30323	12/13/16	1128	G	Water	X			1	MMW-12
AW30324	12/13/16	1222	G	Water	X			1	MMW-13
AW30325	12/13/16	1222	G	Water	X			1	MMW-13 Dup (Sample Duplicate)
AW30326	12/13/16	1348	G	Water	X			1	MMW-14
AW30327	12/13/16	1523	G	Water	X			1	MMW-9
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Special Instructions/QC Requirements:									
Empty Kit Relinquished by: Sarah Copeland Date/Time: 12/20/2016, 0920 Relinquished by: Sarah Copeland Date/Time:		Time: Date/Time: 12/21/16 1620 Received by: [Signature] Date/Time:		Method of Shipment: Date/Time:		Company APC Company Company		Company ITRP Company Company	
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No									



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-131905-1

SDG Number: Ash Pond (4)

Login Number: 131905

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
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	MW-15, MW-21 & FB-2 received but not listed on the 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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
 SDG: Ash Pond (4)

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	12-01-16 *
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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-131905-1
SDG: Ash Pond (4)

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.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1075
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_1075

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.
4. Chloride and Sulfate analyses were run by APC GTL, however, due to instrument issues, all Fluoride analysis was outsourced to Test America, Pensacola. There is no narrative for Test America due to lack of non-conformances.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AX03170	588840	588845	WMWGORAP_1075
AX03171	588840	588844	WMWGORAP_1075
AX03172	588840	588844	WMWGORAP_1075
AX03173	588840	588845	WMWGORAP_1075
AX03174	588840	588844	WMWGORAP_1075
AX03175	588840	588844	WMWGORAP_1075
AX03176	588840	588844	WMWGORAP_1075
AX03177	588840	588844	WMWGORAP_1075
AX03178	588840	588844	WMWGORAP_1075
AX03179	588840	588844	WMWGORAP_1075
AX03180	588841	588848	WMWGORAP_1075
AX03181	588841	588848	WMWGORAP_1075
AX03182	588841	588848	WMWGORAP_1075
AX03183	588841	588845	WMWGORAP_1075
AX03184	588841	588848	WMWGORAP_1075
AX03185	588841	588845	WMWGORAP_1075
AX03186	588841	588845	WMWGORAP_1075
AX03187	588841	588848	WMWGORAP_1075
AX03188	588841	588848	WMWGORAP_1075
AX03189	588841	588848	WMWGORAP_1075
AX03190	588846	588848	WMWGORAP_1075

5. All of the above samples were analyzed and prepared by EPA 300.0.
6. All samples were prepared and analyzed within the established hold times.
7. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met. It is noted that the LFM for sulfate in batch 588845 was diluted prior to spiking, and the diluted LFM sample was spiked at 10x normal concentration, with acceptable recovery.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
8. Samples AX03170, AX03183, AX03185 and AX03186 were re-analyzed for sulfate at a 10x dilution, and sample AX03173 was re-analyzed for sulfate at a 20x dilution, due to undiluted results exceeding the calibrated range of the detector. The dilution results for sulfate for these respective samples should be used; reporting limit (RL) values are adjusted upward to reflect the dilution factor applied.

<u>Sample ID</u>		<u>Analyte</u>		<u>Dilution Factor</u>
AX03170		Sulfate		10X
AX03173		Sulfate		20X
AX03183		Sulfate		10X
AX03185		Sulfate		10X
AX03186		Sulfate		10X



9. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1075

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX03170	20170329 & 2017047A	WMWGORAP_1075
AX03171	20170329 & 2017047A	WMWGORAP_1075
AX03172	20170329 & 2017047A	WMWGORAP_1075
AX03173	20170329 & 2017047A	WMWGORAP_1075
AX03174	20170329 & 2017047A	WMWGORAP_1075
AX03175	20170329 & 2017047A	WMWGORAP_1075
AX03176	20170329 & 2017047A	WMWGORAP_1075
AX03177	20170329 & 2017047A	WMWGORAP_1075
AX03178	20170329 & 2017047A	WMWGORAP_1075
AX03179	20170329 & 2017047A	WMWGORAP_1075
AX03180	20170329A	WMWGORAP_1075
AX03181	20170329A	WMWGORAP_1075
AX03182	20170329A	WMWGORAP_1075
AX03183	20170329A	WMWGORAP_1075
AX03184	20170329A	WMWGORAP_1075
AX03185	20170329A	WMWGORAP_1075
AX03186	20170329A	WMWGORAP_1075
AX03187	20170329A	WMWGORAP_1075
AX03188	20170329A	WMWGORAP_1075
AX03189	20170329A	WMWGORAP_1075
AX03190	20170330A	WMWGORAP_1075

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met. ICV concentration for Li set to 0.2ppm.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes. CCV concentration for Li set to 0.2ppm. An additional Rinse and CCV was added between samples for monitoring Lithium due to possible matrix issues.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard read backs associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.



7. All samples were analyzed straight with the following exceptions: sample AX03190 was analyzed at a 2X dilution due to potential matrix effects. The following samples were diluted due to analyzed sample concentrations over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX03173	Calcium	x10
AX03179MS	Lithium	x2
AX03179MSD	Lithium	x2

8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1075

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX03170	587467	WMWGORAP_1075
AX03171	587467	WMWGORAP_1075
AX03172	587467	WMWGORAP_1075
AX03173	587467	WMWGORAP_1075
AX03174	587467	WMWGORAP_1075
AX03175	587467	WMWGORAP_1075
AX03176	587467	WMWGORAP_1075
AX03177	587467	WMWGORAP_1075
AX03178	587467	WMWGORAP_1075
AX03179	587467	WMWGORAP_1075
AX03180	587468	WMWGORAP_1075
AX03181	587468	WMWGORAP_1075
AX03182	587468	WMWGORAP_1075
AX03183	587468	WMWGORAP_1075
AX03184	587468	WMWGORAP_1075
AX03185	587468	WMWGORAP_1075
AX03186	587468	WMWGORAP_1075
AX03187	587468	WMWGORAP_1075
AX03188	587468	WMWGORAP_1075
AX03189	587468	WMWGORAP_1075
AX03190	587469	WMWGORAP_1075

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1075

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX03170	586977	WMWGORAP_1075
AX03171	586977	WMWGORAP_1075
AX03172	586977	WMWGORAP_1075
AX03173	586977	WMWGORAP_1075
AX03174	586977	WMWGORAP_1075
AX03175	586977	WMWGORAP_1075
AX03176	586977	WMWGORAP_1075
AX03177	586977	WMWGORAP_1075
AX03178	586977	WMWGORAP_1075
AX03179	586977	WMWGORAP_1075
AX03180	586978	WMWGORAP_1075
AX03181	586978	WMWGORAP_1075
AX03182	586978	WMWGORAP_1075
AX03183	586978	WMWGORAP_1075
AX03184	586978	WMWGORAP_1075
AX03185	586978	WMWGORAP_1075
AX03186	586978	WMWGORAP_1075
AX03187	586978	WMWGORAP_1075
AX03188	586978	WMWGORAP_1075
AX03189	586978	WMWGORAP_1075
AX03190	587104	WMWGORAP_1075

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution.
8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1075

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX03170	587101	WMWGORAP_1075
AX03171	587101	WMWGORAP_1075
AX03172	587101	WMWGORAP_1075
AX03173	587101	WMWGORAP_1075
AX03174	587101	WMWGORAP_1075
AX03175	587101	WMWGORAP_1075
AX03176	587101	WMWGORAP_1075
AX03177	587101	WMWGORAP_1075
AX03178	587101	WMWGORAP_1075
AX03179	587101	WMWGORAP_1075
AX03180	586960	WMWGORAP_1075
AX03181	586960	WMWGORAP_1075
AX03182	586960	WMWGORAP_1075
AX03183	586960	WMWGORAP_1075
AX03184	586960	WMWGORAP_1075
AX03185	586960	WMWGORAP_1075
AX03186	586960	WMWGORAP_1075
AX03187	586960	WMWGORAP_1075
AX03188	586960	WMWGORAP_1075
AX03189	586960	WMWGORAP_1075
AX03190	586961	WMWGORAP_1075

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX03178 & AX03188 which were <2.5 mg.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX03170

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.194	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0773	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	1.44	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	14.9	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	0.182	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.150	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		25	338	mg/L
* Chloride, Total	SES	3/2/2017	EPA 300.0		1	0.04	0.25	3.92	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		10	3.0	10	135	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX03170

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX03170

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20	
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5	
AX03186	Sulfate, Total	mg/L	0.053	1.0	200	355	157	18.1	18 to 22	99.0	80 to 120	0.0511	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 07-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX03171

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.368	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0300	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	39.0	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	J 0.0406	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0103	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		25	272	mg/L
* Chloride, Total	SES	3/2/2017	EPA 300.0		1	0.04	0.25	7.57	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.38	mg/L
* Sulfate, Total	SES	3/2/2017	EPA 300.0		1	0.3	1	8.16	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 07-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX03171

Sample	Analysis	Units	MB				LFB			Rec		Prec	
			MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 07-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX03171

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1		4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25				310	46	40 to 60			1.14	5
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5		25.0	18.5	18 to 22	92.5	80 to 120	0.0040020	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 07-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AX03172

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.364	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0289	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	38.6	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	J 0.0411	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0105	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		25	237	mg/L
* Chloride, Total	SES	3/2/2017	EPA 300.0		1	0.04	0.25	7.48	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.37	mg/L
* Sulfate, Total	SES	3/2/2017	EPA 300.0		1	0.3	1	7.98	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 07-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AX03172

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 07-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AX03172

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5	25.0	18.5	18 to 22	92.5	80 to 120	0.0040020	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX03173

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.0669	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0625	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	1.79	mg/L
* Calcium, Total	HRG	4/7/2017	EPA 200.7		10	1.0	5	199	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	0.371	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0381	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		100	1160	mg/L
* Chloride, Total	SES	3/2/2017	EPA 300.0		1	0.04	0.25	33.3	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.34	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		20	6.0	20	672	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX03173

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX03173

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec			
			Limit	Limit			Duplicate	LFB	Limit	Limit	Prec	Limit	
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5
AX03186	Sulfate, Total	mg/L	0.053	1.0	200	355	157	18.1	18 to 22	99.0	80 to 120	0.0511	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX03174

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0823	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0896	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	0.722	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	0.0644	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00359	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		50	376	mg/L
* Chloride, Total	SES	3/2/2017	EPA 300.0		1	0.04	0.25	8.44	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	1.6	mg/L
* Sulfate, Total	SES	3/2/2017	EPA 300.0		1	0.3	1	19.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX03174

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit	
			MB	Limit					Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115		104	70 to 130	1.56	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115		102	70 to 130	2.13	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115		101	70 to 130	0.822	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115		105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115		95.4	70 to 130	0.0802	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115		92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23		112	70 to 130	0.0246	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15		97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115		104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115		102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046		88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115		102	70 to 130	0.267	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115		98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115		104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75		91.0	70 to 130	0.789	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX03174

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec			
			Limit	Limit			Duplicate	LFB	Limit	Limit	Prec	Limit	
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5	25.0	18.5	18 to 22	92.5	80 to 120	0.0040020	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX03175

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.324	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0249	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	32.7	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	J 0.0401	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		25	206	mg/L
* Chloride, Total	SES	3/2/2017	EPA 300.0		1	0.04	0.25	2.50	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.10	mg/L
* Sulfate, Total	SES	3/2/2017	EPA 300.0		1	0.3	1	12.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX03175

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX03175

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20	
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5	
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5	25.0	18.5	18 to 22	92.5	80 to 120	0.0040020		

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX03176

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	J 0.00158	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0498	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0729	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	3.79	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	0.0640	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00852	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		50	414	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	7.68	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.20	mg/L
* Sulfate, Total	SES	3/3/2017	EPA 300.0		1	0.3	1	14.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX03176

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX03176

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1		4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25				310	46	40 to 60			1.14	5
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5		25.0	18.5	18 to 22	92.5	80 to 120	0.0040020	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX03177

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	J 0.00188	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0449	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0803	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	3.75	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	0.178	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0419	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		50	352	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	23.8	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.25	mg/L
* Sulfate, Total	SES	3/3/2017	EPA 300.0		1	0.3	1	17.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX03177

Sample	Analysis	Units	MB				LFB			Rec		Prec	
			MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX03177

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec			
			Limit	Limit			Duplicate	LFB	Limit	Limit	Prec	Limit	
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5	25.0	18.5	18 to 22	92.5	80 to 120	0.0040020	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX03178

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total	SES	3/3/2017	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX03178

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit	
			MB	Limit					Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115		104	70 to 130	1.56	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115		102	70 to 130	2.13	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115		101	70 to 130	0.822	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115		105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115		95.4	70 to 130	0.0802	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115		92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23		112	70 to 130	0.0246	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15		97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115		104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115		102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046		88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115		102	70 to 130	0.267	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115		98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115		104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75		91.0	70 to 130	0.789	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX03178

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5	25.0	18.5	18 to 22	92.5	80 to 120	0.0040020	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX03179

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.00625	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.294	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	J 0.0524	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	14.4	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	0.150	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0346	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	GAS	2/14/2017	SM 2540C		1		25	303	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	4.96	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.56	mg/L
* Sulfate, Total	SES	3/3/2017	EPA 300.0		1	0.3	1	25.0	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX03179

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03179	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.104	0.106	0.105	0.085 to 0.115	104	70 to 130	1.56	20
AX03179	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.101	0.101	0.104	0.085 to 0.115	101	70 to 130	0.822	20
AX03179	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	2.13	20
AX03179	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.619	20
AX03179	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.130	0.130	0.0950	0.085 to 0.115	95.4	70 to 130	0.0802	20
AX03179	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.0982	0.0985	0.0978	0.085 to 0.115	98.2	70 to 130	0.366	20
AX03179	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.110	0.111	0.104	0.085 to 0.115	104	70 to 130	1.39	20
AX03179	Calcium, Total	mg/L	-0.00406	0.22	5.00	19.0	19.1	4.86	4.25 to 5.75	91.0	70 to 130	0.789	20
AX03179	Boron, Total	mg/L	-0.00104	0.044	1.00	1.03	1.04	0.940	0.85 to 1.15	97.3	70 to 130	1.45	20
AX03179	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.104	0.106	0.104	0.085 to 0.115	104	70 to 130	1.90	20
AX03179	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	0.631	20
AX03179	Mercury, Total by CVAA	mg/L	0.0000461	0.0005	0.004	0.00355	0.00359	0.00376	0.0034 to 0.0046	88.7	70 to 130	1.15	20
AX03179	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.102	0.103	0.101	0.085 to 0.115	102	70 to 130	0.267	20
AX03179	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.386	0.390	0.0995	0.085 to 0.115	92.1	70 to 130	1.10	20
AX03179	Lithium, Total	mg/L	-0.0000237	0.022	0.20	0.374	0.374	0.200	0.17 to 0.23	112	70 to 130	0.0246	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX03179

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03179	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	4.95	9.31	9 to 11	91.4	80 to 120	0.121	20	
AX03179	Solids, Dissolved	mg/L	-9.0	25			310	46	40 to 60			1.14	5	
AX03179	Sulfate, Total	mg/L	0.000	1.0	20.00	43.5	25.0	18.5	18 to 22	92.5	80 to 120	0.0040020		

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX03180

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX03180

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115	102	70 to 130	1.96	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046	82.9	70 to 130	0.924	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115	108	70 to 130	1.93	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115	107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.96	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115	112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115	101	70 to 130	3.06	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115	115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15	97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115	108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115	111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23	125	70 to 130	2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75	97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115	108	70 to 130	3.38	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPEB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX03180

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX03181

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	J 0.00157	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.277	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	35.7	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	J 0.0348	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	208	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	5.00	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.15	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	11.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX03181

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115		102	70 to 130	1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115		108	70 to 130	1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046		82.9	70 to 130	0.924	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115		112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115		101	70 to 130	3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115		107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115		108	70 to 130	2.96	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115		115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15		97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115		108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115		111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23		125	70 to 130	2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75		97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115		109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115		108	70 to 130	3.38	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX03181

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20	
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5	
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX03182

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.0618	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.779	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	1.06	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	51.2	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	0.247	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00468	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	285	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	5.28	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	54.9	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX03182

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115		102	70 to 130		1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115		108	70 to 130		1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046		82.9	70 to 130		0.924	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115		112	70 to 130		3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115		101	70 to 130		3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115		107	70 to 130		1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115		108	70 to 130		2.96	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75		97.3	70 to 130		0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115		109	70 to 130		2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115		108	70 to 130		3.38	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115		115	70 to 130		2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15		97.9	70 to 130		1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115		108	70 to 130		2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115		111	70 to 130		4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23		125	70 to 130		2.45	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX03182

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20	
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5	
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX03183

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.0106	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.250	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	1.10	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	73.1	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00247	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		50	580	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	23.3	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		10	3.0	10	309	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX03183

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115		102	70 to 130		1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115		108	70 to 130		1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046		82.9	70 to 130		0.924	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115		107	70 to 130		1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115		108	70 to 130		2.96	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115		115	70 to 130		2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15		97.9	70 to 130		1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115		108	70 to 130		2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115		111	70 to 130		4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23		125	70 to 130		2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75		97.3	70 to 130		0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115		109	70 to 130		2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115		108	70 to 130		3.38	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115		112	70 to 130		3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115		101	70 to 130		3.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX03183

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03186	Sulfate, Total	mg/L	0.053	1.0	200	355	157	18.1	18 to 22	99.0	80 to 120	0.0511	20
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX03184

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	J 0.00111	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0747	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	9.76	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00308	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	108	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	3.00	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.10	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	3.74	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX03184

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115	102	70 to 130	1.96	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046	82.9	70 to 130	0.924	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115	108	70 to 130	1.93	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115	112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115	101	70 to 130	3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115	107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.96	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115	115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15	97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115	108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115	111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23	125	70 to 130	2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75	97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115	108	70 to 130	3.38	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 06-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX03184

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20	
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5	
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX03185

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.00659	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0264	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	J 0.000705	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	0.160	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	77.6	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	0.0935	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00670	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		50	442	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	2.21	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.10	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		10	3.0	10	157	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX03185

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115	102	70 to 130	1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115	108	70 to 130	1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046	82.9	70 to 130	0.924	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115	112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115	101	70 to 130	3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115	107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.96	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115	115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15	97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115	108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115	111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23	125	70 to 130	2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75	97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115	108	70 to 130	3.38	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX03185

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03186	Sulfate, Total	mg/L	0.053	1.0	200	355	157	18.1	18 to 22	99.0	80 to 120	0.0511	20
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-9 Dup

Laboratory ID Number: AX03186

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.00683	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.0279	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	0.161	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	78.4	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	0.0940	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00678	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		50	432	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	2.21	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.10	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		10	3.0	10	157	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-9 Dup

Laboratory ID Number: AX03186

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115	102	70 to 130	1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115	108	70 to 130	1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046	82.9	70 to 130	0.924	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75	97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.0000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115	108	70 to 130	3.38	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115	112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115	101	70 to 130	3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115	107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.96	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115	115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15	97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115	108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115	111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23	125	70 to 130	2.45	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-9 Dup

Laboratory ID Number: AX03186

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03186	Sulfate, Total	mg/L	0.053	1.0	200	355	157	18.1	18 to 22	99.0	80 to 120	0.0511	20
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Reported: 6/7/2017
 Version: 2.0

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX03187

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.234	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	44.6	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	J 0.0148	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	236	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	4.84	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	21.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX03187

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115		102	70 to 130		1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115		108	70 to 130		1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046		82.9	70 to 130		0.924	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115		112	70 to 130		3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115		101	70 to 130		3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115		107	70 to 130		1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115		108	70 to 130		2.96	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75		97.3	70 to 130		0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115		109	70 to 130		2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115		108	70 to 130		3.38	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115		115	70 to 130		2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15		97.9	70 to 130		1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115		108	70 to 130		2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115		111	70 to 130		4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23		125	70 to 130		2.45	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX03187

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20	
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5	
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX03188

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	0.393	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	U Not Detected	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX03188

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115	102	70 to 130	1.96	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046	82.9	70 to 130	0.924	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115	108	70 to 130	1.93	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115	107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.96	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115	112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115	101	70 to 130	3.06	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115	115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15	97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115	108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115	111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23	125	70 to 130	2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75	97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115	108	70 to 130	3.38	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAPFB
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX03188

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX03189

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	0.0427	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.122	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		2	0.02	0.1	0.264	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		2	0.1	0.5	31.9	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		2	0.01	0.05	J 0.0315	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	J 0.00235	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	379	mg/L
* Chloride, Total	SES	3/3/2017	EPA 300.0		1	0.04	0.25	8.77	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.79	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	3.30	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX03189

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03189	Antimony, Total	mg/L	0.0000805	0.00132	0.10	0.102	0.1000	0.0978	0.085 to 0.115	102	70 to 130	1.96	20
AX03189	Arsenic, Total	mg/L	0.0000217	0.0022	0.10	0.151	0.148	0.104	0.085 to 0.115	108	70 to 130	1.93	20
AX03189	Mercury, Total by CVAA	mg/L	0.0000476	0.0005	0.004	0.00332	0.00328	0.00383	0.0034 to 0.0046	82.9	70 to 130	0.924	20
AX03189	Barium, Total	mg/L	0.0000204	0.0044	0.10	0.234	0.226	0.0995	0.085 to 0.115	112	70 to 130	3.13	20
AX03189	Molybdenum, Total	mg/L	0.0000153	0.0044	0.10	0.103	0.100	0.0950	0.085 to 0.115	101	70 to 130	3.06	20
AX03189	Chromium, Total	mg/L	0.0000189	0.0044	0.10	0.107	0.105	0.102	0.085 to 0.115	107	70 to 130	1.80	20
AX03189	Lead, Total	mg/L	0.0000142	0.0022	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.96	20
AX03189	Beryllium, Total	mg/L	0.0000655	0.00132	0.10	0.115	0.113	0.104	0.085 to 0.115	115	70 to 130	2.32	20
AX03189	Boron, Total	mg/L	-0.00113	0.044	1.00	1.24	1.23	0.954	0.85 to 1.15	97.9	70 to 130	1.31	20
AX03189	Cadmium, Total	mg/L	0.00000644	0.00044	0.10	0.108	0.106	0.104	0.085 to 0.115	108	70 to 130	2.57	20
AX03189	Cobalt, Total	mg/L	0.0000116	0.0044	0.10	0.111	0.106	0.104	0.085 to 0.115	111	70 to 130	4.34	20
AX03189	Lithium, Total	mg/L	-0.0000100	0.022	0.20	0.282	0.275	0.206	0.17 to 0.23	125	70 to 130	2.45	20
AX03189	Calcium, Total	mg/L	-0.00734	0.22	5.00	36.7	36.4	4.92	4.25 to 5.75	97.3	70 to 130	0.932	20
AX03189	Selenium, Total	mg/L	0.0000463	0.0044	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	2.22	20
AX03189	Thallium, Total	mg/L	0.00000925	0.00044	0.10	0.108	0.104	0.101	0.085 to 0.115	108	70 to 130	3.38	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX03189

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec			
			Limit	Limit			Duplicate	LFB	Limit	Limit			
AX03189	Chloride, Total	mg/L	0.000	0.25	10.00	17.8	8.69	9.32	9 to 11	90.3	80 to 120	0.916	20
AX03189	Solids, Dissolved	mg/L	2.00	25			374	51.0	40 to 60			0.664	5
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX03190

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	5/22/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	0.189	mg/L
* Beryllium, Total	JHK	2/17/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/30/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/30/2017	EPA 200.7		2	0.1	0.5	47.5	mg/L
* Cadmium, Total	JHK	2/17/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/30/2017	EPA 200.7		2	0.01	0.05	J 0.0118	mg/L
* Molybdenum, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/17/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/17/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/17/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/11/2017	SM 2540C		1		25	212	mg/L
* Chloride, Total	SES	3/4/2017	EPA 300.0		1	0.04	0.25	2.85	mg/L
* Fluoride, Total, by Test America	SGC	3/13/2017	SM 4500 F_C		1	0.032	0.10	0.16	mg/L
* Sulfate, Total	SES	3/5/2017	EPA 300.0		1	0.3	1	10.9	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX03190

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX03190	Cadmium, Total	mg/L	0.0000120	0.00044	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	1.11	20
AX03190	Lithium, Total	mg/L	0.0000143	0.022	0.20	0.244	0.251	0.216	0.17 to 0.23	116	70 to 130	3.11	20
AX03190	Thallium, Total	mg/L	0.0000116	0.00044	0.10	0.102	0.103	0.102	0.085 to 0.115	102	70 to 130	0.843	20
AX03190	Boron, Total	mg/L	-0.000926	0.044	1.00	1.00	0.992	0.990	0.85 to 1.15	100	70 to 130	1.10	20
AX03190	Molybdenum, Total	mg/L	0.0000297	0.0044	0.10	0.0948	0.0957	0.0955	0.085 to 0.115	94.8	70 to 130	0.940	20
AX03190	Barium, Total	mg/L	0.0000353	0.0044	0.10	0.286	0.284	0.1000	0.085 to 0.115	96.7	70 to 130	0.876	20
AX03190	Antimony, Total	mg/L	0.0000830	0.00132	0.10	0.0969	0.0971	0.0979	0.085 to 0.115	96.9	70 to 130	0.199	20
AX03190	Chromium, Total	mg/L	0.0000158	0.0044	0.10	0.102	0.103	0.102	0.085 to 0.115	102	70 to 130	0.858	20
AX03190	Mercury, Total by CVAA	mg/L	0.000102	0.0005	0.004	0.00393	0.00395	0.00391	0.0034 to 0.0046	98.3	70 to 130	0.396	20
AX03190	Arsenic, Total	mg/L	0.0000191	0.0022	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.406	20
AX03190	Selenium, Total	mg/L	0.0000213	0.0044	0.10	0.106	0.103	0.106	0.085 to 0.115	106	70 to 130	3.10	20
AX03190	Beryllium, Total	mg/L	0.0000216	0.00132	0.10	0.107	0.103	0.104	0.085 to 0.115	107	70 to 130	3.29	20
AX03190	Calcium, Total	mg/L	-0.00248	0.22	5.00	52.8	53.0	4.86	4.25 to 5.75	107	70 to 130	0.349	20
AX03190	Cobalt, Total	mg/L	0.0000123	0.0044	0.10	0.104	0.104	0.103	0.085 to 0.115	104	70 to 130	0.532	20
AX03190	Lead, Total	mg/L	0.0000169	0.0022	0.10	0.102	0.103	0.104	0.085 to 0.115	102	70 to 130	1.11	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGORAP
 Sample Date: 08-Feb-17
 Customer ID:
 Delivery Date: 09-Feb-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX03190

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec			
			Limit	Limit			Duplicate	LFB	Limit	Limit	Prec	Limit	
AX03190	Chloride, Total	mg/L	0.000	0.25	10.00	11.8	2.88	9.32	9 to 11	89.5	80 to 120	1.33	20
AX03190	Solids, Dissolved	mg/L	2.00	25			227	51.0	40 to 60			3.42	5
AX03190	Sulfate, Total	mg/L	0.000	1.0	20.00	29.7	10.9	18.9	18 to 22	94.0	80 to 120	0.266	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA **02/09/2017 08:00**

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (1L): Radiological, Bottle 2 (500mL): Metals, Bottle 3 (250mL): Hg, Bottle 4 (500mL): TDS, Bottle 5 (250mL): Anions		
Comments	Radium Duplicate collected MW-18 Due to instrument issues, all Fluoride analysis was outsourced to Test America, Pensacola.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	02/06/2017	15:53	5	Groundwater		AX03170
MW-19	02/07/2017	09:23	5	Groundwater		AX03171
MW-19DUP	02/07/2017	09:23	5	Sample Duplicate		AX03172
MW-18	02/08/2017	09:53	7	Groundwater		AX03173
MW-2	02/08/2017	11:48	5	Groundwater		AX03174
MW-16D	02/08/2017	13:40	5	Groundwater		AX03175

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.02.09 08:23:29 -06'00'</small>	02/09/2017 08:23

SmarTroll ID	5151-26193-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	
Cooler Temp	0.3 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	5521-28270-20-14	



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 02/09/2017 08:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, John Pugh, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Gorgas Ash Pond"/>

Analysis Requested	<input type="text" value="Bottle 1 (1L): Radiological, Bottle 2 (500mL): Metals, Bottle 3 (250mL): Hg, Bottle 4 (500mL): TDS, Bottle 5 (250mL): Anions"/>		
Comments	<input type="text" value="Due to instrument issues, all Fluoride analysis was outsourced to Test America, Pensacola."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	02/06/2017	14:25	5	Groundwater		AX03176
MW-21	02/08/2017	09:57	5	Groundwater		AX03177
FB-2	02/08/2017	10:18	5	Field Blank		AX03178
MW-15	02/08/2017	13:30	5	Groundwater		AX03179
EB-1	02/08/2017	14:05	5	Equipment Blank		AX03180
MW-14	02/08/2017	15:40	5	Groundwater		AX03181

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.02.09 12:25:35 -06'00'</small>	02/09/2017 12:25

SmarTroll ID <input type="text" value="4696-23443-3-2"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID <input type="text" value="4677-23342-4-1"/>	Cooler Temp <input type="text" value="0.2 degrees C"/>
	Thermometer ID <input type="text" value="5408-27568-2-2"/>
	pH Strip ID <input type="text" value="5521-28270-20-14"/>



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 02/09/2017 08:30

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (1L): Radiological, Bottle 2 (500mL): Metals, Bottle 3 (250mL): Hg, Bottle 4 (500mL): TDS, Bottle 5 (250mL): Anions		
Comments	Radium Duplicate collected at MW-12 Due to instrument issues, all Fluoride analysis was outsourced to Test America, Pensacola.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6D	02/06/2017	13:05	5	Groundwater		AX03182
MW-6S	02/06/2017	14:05	5	Groundwater		AX03183
MW-8	02/06/2017	16:35	5	Groundwater		AX03184
MW-9	02/08/2017	09:20	5	Groundwater		AX03185
MW-9 DUP	02/08/2017	09:20	5	Sample Duplicate		AX03186
MW-11	02/08/2017	10:57	5	Groundwater		AX03187
FB-1	02/08/2017	11:25	5	Field Blank		AX03188
MW-12	02/08/2017	13:25	7	Groundwater		AX03189
MW-13	02/08/2017	14:57	5	Groundwater		AX03190

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southerncco.com, c=US Date: 2017.02.09 12:28:04 -06'00'</small>	02/09/2017 12:28

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20010-2-2	Cooler Temp	0.1 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	5521-28270-20-14

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: 400-133961-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (5)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

3/22/2017 3:03:02 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	27
Chronicle	28
QC Association	34
QC Sample Results	36
Chain of Custody	40
Receipt Checklists	42
Certification Summary	43

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

Job ID: 400-133961-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133961-1

RAD

Method(s) PrecSep_0: Radium 228; Prep Batch 294407. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-294407. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepped instead to show batch precision.

Method(s) PrecSep-21: Radium 226; Prep Batch 294401. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 160-294401. A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepped instead to show batch precision.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133961-1	AX03170 MW-7	Water	02/06/17 15:53	02/14/17 16:54
400-133961-2	AX03171 MW-19	Water	02/07/17 09:23	02/14/17 16:54
400-133961-3	AX03172 MW-19 DUP	Water	02/07/17 09:23	02/14/17 16:54
400-133961-4	AX03173 MW-18	Water	02/08/17 09:53	02/14/17 16:54
400-133961-5	AX03174 MW-2	Water	02/08/17 11:48	02/14/17 16:54
400-133961-6	AX03175 MW-16D	Water	02/08/17 13:40	02/14/17 16:54
400-133961-7	AX03176 MW-17	Water	02/06/17 14:25	02/14/17 16:54
400-133961-8	AX03177 MW-21	Water	02/08/17 09:57	02/14/17 16:54
400-133961-9	AX03178 FB-2	Water	02/08/17 10:18	02/14/17 16:54
400-133961-10	AX03179 MW-15	Water	02/08/17 13:30	02/14/17 16:54
400-133961-11	AX03180 EB-1	Water	02/08/17 14:05	02/14/17 16:54
400-133961-12	AX03181 MW-14	Water	02/08/17 15:40	02/14/17 16:54
400-133961-13	AX03182 MW-6D	Water	02/06/17 13:05	02/14/17 16:54
400-133961-14	AX03183 MW-6S	Water	02/06/17 14:05	02/14/17 16:54
400-133961-15	AX03184 MW-8	Water	02/06/17 16:35	02/14/17 16:54
400-133961-16	AX03185 MW-9	Water	02/08/17 09:20	02/14/17 16:54
400-133961-17	AX03186 MW-9 DUP	Water	02/08/17 09:20	02/14/17 16:54
400-133961-18	AX03187 MW-11	Water	02/08/17 10:57	02/14/17 16:54
400-133961-19	AX03188 FB-1	Water	02/08/17 11:25	02/14/17 16:54
400-133961-20	AX03189 MW-12	Water	02/08/17 13:25	02/14/17 16:54
400-133961-21	AX03190 MW-13	Water	02/08/17 14:57	02/14/17 16:54

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03170 MW-7

Lab Sample ID: 400-133961-1

Date Collected: 02/06/17 15:53

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.146		0.0815	0.0825	1.00	0.0952	pCi/L	02/24/17 11:38	03/20/17 05:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					02/24/17 11:38	03/20/17 05:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.163	U	0.226	0.227	1.00	0.432	pCi/L	02/24/17 12:24	03/13/17 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					02/24/17 12:24	03/13/17 18:12	1
Y Carrier	84.1		40 - 110					02/24/17 12:24	03/13/17 18:12	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	-0.0165	U	0.240	0.241	5.00	0.432	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03171 MW-19

Lab Sample ID: 400-133961-2

Date Collected: 02/07/17 09:23

Matrix: Water

Date Received: 02/14/17 16:54

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		0.102	0.104	1.00	0.127	pCi/L	02/24/17 11:38	03/20/17 05:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/24/17 11:38	03/20/17 05:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.273	U	0.275	0.276	1.00	0.448	pCi/L	02/24/17 12:24	03/13/17 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/24/17 12:24	03/13/17 18:12	1
Y Carrier	90.1		40 - 110					02/24/17 12:24	03/13/17 18:12	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	0.473		0.293	0.295	5.00	0.448	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03172 MW-19 DUP

Lab Sample ID: 400-133961-3

Date Collected: 02/07/17 09:23

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.251		0.103	0.106	1.00	0.0966	pCi/L	02/24/17 11:38	03/20/17 05:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					02/24/17 11:38	03/20/17 05:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.333	U	0.283	0.284	1.00	0.453	pCi/L	02/24/17 12:24	03/13/17 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					02/24/17 12:24	03/13/17 18:12	1
Y Carrier	81.9		40 - 110					02/24/17 12:24	03/13/17 18:12	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	0.584		0.301	0.303	5.00	0.453	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03173 MW-18

Lab Sample ID: 400-133961-4

Date Collected: 02/08/17 09:53

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.127		0.0771	0.0780	1.00	0.0882	pCi/L	02/24/17 11:38	03/20/17 05:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.1		40 - 110					02/24/17 11:38	03/20/17 05:32	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.212	U	0.243	0.244	1.00	0.467	pCi/L	02/24/17 12:24	03/13/17 18:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.1		40 - 110					02/24/17 12:24	03/13/17 18:12	1
Y Carrier	84.5		40 - 110					02/24/17 12:24	03/13/17 18:12	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	-0.0851	U	0.255	0.256	5.00	0.467	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03174 MW-2

Lab Sample ID: 400-133961-5

Date Collected: 02/08/17 11:48

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.102		0.0673	0.0679	1.00	0.0838	pCi/L	02/24/17 11:38	03/20/17 05:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					02/24/17 11:38	03/20/17 05:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0811	U	0.197	0.197	1.00	0.366	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	89.0		40 - 110					02/24/17 12:24	03/13/17 18:13	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	0.0206	U	0.208	0.208	5.00	0.366	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03175 MW-16D

Lab Sample ID: 400-133961-6

Date Collected: 02/08/17 13:40

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0865	U	0.0688	0.0693	1.00	0.0943	pCi/L	02/24/17 11:38	03/20/17 05:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					02/24/17 11:38	03/20/17 05:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0788	U	0.251	0.251	1.00	0.461	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	84.9		40 - 110					02/24/17 12:24	03/13/17 18:13	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	0.00772	U	0.260	0.261	5.00	0.461	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03176 MW-17

Lab Sample ID: 400-133961-7

Date Collected: 02/06/17 14:25

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0470	U	0.0649	0.0650	1.00	0.109	pCi/L	02/24/17 11:38	03/20/17 05:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					02/24/17 11:38	03/20/17 05:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0752	U	0.222	0.223	1.00	0.416	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	79.3		40 - 110					02/24/17 12:24	03/13/17 18:13	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	-0.0283	U	0.232	0.232	5.00	0.416	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03177 MW-21

Lab Sample ID: 400-133961-8

Date Collected: 02/08/17 09:57

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0845	0.0858	1.00	0.0896	pCi/L	02/24/17 11:38	03/20/17 05:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/24/17 11:38	03/20/17 05:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.241	U	0.220	0.221	1.00	0.433	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	87.1		40 - 110					02/24/17 12:24	03/13/17 18:13	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	-0.0740	U	0.235	0.237	5.00	0.433	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03178 FB-2

Lab Sample ID: 400-133961-9

Date Collected: 02/08/17 10:18

Matrix: Water

Date Received: 02/14/17 16:54

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	0.0570	0.0572	1.00	0.0864	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.242	U	0.231	0.232	1.00	0.374	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	91.6		40 - 110					02/24/17 12:24	03/13/17 18:13	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	0.298	U	0.238	0.239	5.00	0.374	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03179 MW-15

Lab Sample ID: 400-133961-10

Date Collected: 02/08/17 13:30

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.190		0.0899	0.0916	1.00	0.0928	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0633	U	0.234	0.234	1.00	0.410	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	82.2		40 - 110					02/24/17 12:24	03/13/17 18:13	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	0.254	U	0.251	0.252	5.00	0.410	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03180 EB-1

Lab Sample ID: 400-133961-11

Date Collected: 02/08/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0194	U	0.0734	0.0735	1.00	0.139	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.151	U	0.221	0.222	1.00	0.426	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	85.6		40 - 110					02/24/17 12:24	03/13/17 18:13	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	-0.132	U	0.233	0.234	5.00	0.426	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03181 MW-14

Lab Sample ID: 400-133961-12

Date Collected: 02/08/17 15:40

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.165		0.0857	0.0869	1.00	0.0906	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.552		0.267	0.271	1.00	0.385	pCi/L	02/24/17 12:24	03/13/17 18:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		40 - 110					02/24/17 12:24	03/13/17 18:13	1
Y Carrier	86.4		40 - 110					02/24/17 12:24	03/13/17 18:13	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	0.717		0.280	0.285	5.00	0.385	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03182 MW-6D

Lab Sample ID: 400-133961-13

Date Collected: 02/06/17 13:05

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.256		0.108	0.110	1.00	0.123	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.277	U	0.214	0.216	1.00	0.338	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	91.2		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.532		0.240	0.242	5.00	0.338	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03183 MW-6S

Lab Sample ID: 400-133961-14

Date Collected: 02/06/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.333		0.123	0.126	1.00	0.128	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.369	U	0.261	0.263	1.00	0.406	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	81.5		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.702		0.288	0.292	5.00	0.406	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03184 MW-8

Lab Sample ID: 400-133961-15

Date Collected: 02/06/17 16:35

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.163		0.0926	0.0937	1.00	0.115	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0882	U	0.277	0.277	1.00	0.478	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	83.7		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.251	U	0.292	0.293	5.00	0.478	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03185 MW-9

Lab Sample ID: 400-133961-16

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.178		0.0988	0.100	1.00	0.125	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0915	U	0.268	0.268	1.00	0.463	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	84.9		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.270	U	0.286	0.287	5.00	0.463	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03186 MW-9 DUP

Lab Sample ID: 400-133961-17

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.194		0.0889	0.0906	1.00	0.0909	pCi/L	02/24/17 11:38	03/20/17 05:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/24/17 11:38	03/20/17 05:34	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0362	U	0.233	0.233	1.00	0.409	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	89.7		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.231	U	0.250	0.250	5.00	0.409	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03187 MW-11

Lab Sample ID: 400-133961-18

Date Collected: 02/08/17 10:57

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195		0.0959	0.0975	1.00	0.109	pCi/L	02/24/17 11:38	03/20/17 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					02/24/17 11:38	03/20/17 05:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.402	U	0.269	0.271	1.00	0.416	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	84.9		40 - 110					02/24/17 12:24	03/13/17 18:05	1

Method: Ra226_Ra228 - Combined Radium-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		0.285	0.288	5.00	0.416	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03188 FB-1

Lab Sample ID: 400-133961-19

Date Collected: 02/08/17 11:25

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0153	U	0.0467	0.0468	1.00	0.0926	pCi/L	02/24/17 11:38	03/20/17 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/24/17 11:38	03/20/17 05:35	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.133	U	0.220	0.220	1.00	0.372	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	84.1		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.148	U	0.225	0.225	5.00	0.372	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03189 MW-12

Lab Sample ID: 400-133961-20

Date Collected: 02/08/17 13:25

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.0965	0.0970	1.00	0.148	pCi/L	02/24/17 11:38	03/20/17 05:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.7		40 - 110					02/24/17 11:38	03/20/17 05:36	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424	U	0.290	0.292	1.00	0.449	pCi/L	02/24/17 12:24	03/13/17 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.7		40 - 110					02/24/17 12:24	03/13/17 18:05	1
Y Carrier	80.4		40 - 110					02/24/17 12:24	03/13/17 18:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.535		0.305	0.308	5.00	0.449	pCi/L		03/21/17 14:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03190 MW-13

Lab Sample ID: 400-133961-21

Date Collected: 02/08/17 14:57

Matrix: Water

Date Received: 02/14/17 16:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.153		0.0814	0.0826	1.00	0.0906	pCi/L	02/24/17 10:49	03/20/17 20:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/24/17 10:49	03/20/17 20:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.302	U	0.299	0.300	1.00	0.486	pCi/L	02/24/17 11:31	03/11/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					02/24/17 11:31	03/11/17 14:43	1
Y Carrier	87.5		40 - 110					02/24/17 11:31	03/11/17 14:43	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	0.455	U	0.310	0.311	5.00	0.486	pCi/L		03/21/17 14:31	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03170 MW-7

Lab Sample ID: 400-133961-1

Date Collected: 02/06/17 15:53

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:32	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03171 MW-19

Lab Sample ID: 400-133961-2

Date Collected: 02/07/17 09:23

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:32	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03172 MW-19 DUP

Lab Sample ID: 400-133961-3

Date Collected: 02/07/17 09:23

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:32	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03173 MW-18

Lab Sample ID: 400-133961-4

Date Collected: 02/08/17 09:53

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:32	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03174 MW-2

Lab Sample ID: 400-133961-5

Date Collected: 02/08/17 11:48

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03175 MW-16D

Lab Sample ID: 400-133961-6

Date Collected: 02/08/17 13:40

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03176 MW-17

Lab Sample ID: 400-133961-7

Date Collected: 02/06/17 14:25

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03177 MW-21

Lab Sample ID: 400-133961-8

Date Collected: 02/08/17 09:57

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03178 FB-2

Lab Sample ID: 400-133961-9

Date Collected: 02/08/17 10:18

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03179 MW-15

Lab Sample ID: 400-133961-10

Date Collected: 02/08/17 13:30

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03180 EB-1

Lab Sample ID: 400-133961-11

Date Collected: 02/08/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03181 MW-14

Lab Sample ID: 400-133961-12

Date Collected: 02/08/17 15:40

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297320	03/13/17 18:13	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03182 MW-6D

Lab Sample ID: 400-133961-13

Date Collected: 02/06/17 13:05

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03183 MW-6S

Lab Sample ID: 400-133961-14

Date Collected: 02/06/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03184 MW-8

Lab Sample ID: 400-133961-15

Date Collected: 02/06/17 16:35

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03185 MW-9

Lab Sample ID: 400-133961-16

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03186 MW-9 DUP

Lab Sample ID: 400-133961-17

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03187 MW-11

Lab Sample ID: 400-133961-18

Date Collected: 02/08/17 10:57

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:35	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03188 FB-1

Lab Sample ID: 400-133961-19

Date Collected: 02/08/17 11:25

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 05:35	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX03189 MW-12

Lab Sample ID: 400-133961-20

Date Collected: 02/08/17 13:25

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294408	02/24/17 11:38	PJM	TAL SL
Total/NA	Analysis	9315		1	298258	03/20/17 05:36	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294412	02/24/17 12:24	PJM	TAL SL
Total/NA	Analysis	9320		1	297321	03/13/17 18:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03190 MW-13

Lab Sample ID: 400-133961-21

Date Collected: 02/08/17 14:57

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294401	02/24/17 10:49	PJM	TAL SL
Total/NA	Analysis	9315		1	298257	03/20/17 20:28	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294407	02/24/17 11:31	PJM	TAL SL
Total/NA	Analysis	9320		1	297297	03/11/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Rad

Prep Batch: 294401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-21	AX03190 MW-13	Total/NA	Water	PrecSep-21	
MB 160-294401/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-294401/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCS D 160-294401/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 294407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-21	AX03190 MW-13	Total/NA	Water	PrecSep_0	
MB 160-294407/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-294407/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCS D 160-294407/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 294408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-1	AX03170 MW-7	Total/NA	Water	PrecSep-21	
400-133961-2	AX03171 MW-19	Total/NA	Water	PrecSep-21	
400-133961-3	AX03172 MW-19 DUP	Total/NA	Water	PrecSep-21	
400-133961-4	AX03173 MW-18	Total/NA	Water	PrecSep-21	
400-133961-5	AX03174 MW-2	Total/NA	Water	PrecSep-21	
400-133961-6	AX03175 MW-16D	Total/NA	Water	PrecSep-21	
400-133961-7	AX03176 MW-17	Total/NA	Water	PrecSep-21	
400-133961-8	AX03177 MW-21	Total/NA	Water	PrecSep-21	
400-133961-9	AX03178 FB-2	Total/NA	Water	PrecSep-21	
400-133961-10	AX03179 MW-15	Total/NA	Water	PrecSep-21	
400-133961-11	AX03180 EB-1	Total/NA	Water	PrecSep-21	
400-133961-12	AX03181 MW-14	Total/NA	Water	PrecSep-21	
400-133961-13	AX03182 MW-6D	Total/NA	Water	PrecSep-21	
400-133961-14	AX03183 MW-6S	Total/NA	Water	PrecSep-21	
400-133961-15	AX03184 MW-8	Total/NA	Water	PrecSep-21	
400-133961-16	AX03185 MW-9	Total/NA	Water	PrecSep-21	
400-133961-17	AX03186 MW-9 DUP	Total/NA	Water	PrecSep-21	
400-133961-18	AX03187 MW-11	Total/NA	Water	PrecSep-21	
400-133961-19	AX03188 FB-1	Total/NA	Water	PrecSep-21	
400-133961-20	AX03189 MW-12	Total/NA	Water	PrecSep-21	
MB 160-294408/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-294408/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133961-4 DU	AX03173 MW-18	Total/NA	Water	PrecSep-21	
400-133961-20 DU	AX03189 MW-12	Total/NA	Water	PrecSep-21	

Prep Batch: 294412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-1	AX03170 MW-7	Total/NA	Water	PrecSep_0	
400-133961-2	AX03171 MW-19	Total/NA	Water	PrecSep_0	
400-133961-3	AX03172 MW-19 DUP	Total/NA	Water	PrecSep_0	
400-133961-4	AX03173 MW-18	Total/NA	Water	PrecSep_0	
400-133961-5	AX03174 MW-2	Total/NA	Water	PrecSep_0	
400-133961-6	AX03175 MW-16D	Total/NA	Water	PrecSep_0	
400-133961-7	AX03176 MW-17	Total/NA	Water	PrecSep_0	
400-133961-8	AX03177 MW-21	Total/NA	Water	PrecSep_0	
400-133961-9	AX03178 FB-2	Total/NA	Water	PrecSep_0	
400-133961-10	AX03179 MW-15	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
SDG: Gorgas Ash Pond (5)

Rad (Continued)

Prep Batch: 294412 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-11	AX03180 EB-1	Total/NA	Water	PrecSep_0	
400-133961-12	AX03181 MW-14	Total/NA	Water	PrecSep_0	
400-133961-13	AX03182 MW-6D	Total/NA	Water	PrecSep_0	
400-133961-14	AX03183 MW-6S	Total/NA	Water	PrecSep_0	
400-133961-15	AX03184 MW-8	Total/NA	Water	PrecSep_0	
400-133961-16	AX03185 MW-9	Total/NA	Water	PrecSep_0	
400-133961-17	AX03186 MW-9 DUP	Total/NA	Water	PrecSep_0	
400-133961-18	AX03187 MW-11	Total/NA	Water	PrecSep_0	
400-133961-19	AX03188 FB-1	Total/NA	Water	PrecSep_0	
400-133961-20	AX03189 MW-12	Total/NA	Water	PrecSep_0	
MB 160-294412/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-294412/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-133961-4 DU	AX03173 MW-18	Total/NA	Water	PrecSep_0	
400-133961-20 DU	AX03189 MW-12	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-294401/1-A
Matrix: Water
Analysis Batch: 298257

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294401

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.1011		0.0693	0.0699	1.00	0.0920	pCi/L	02/24/17 10:49	03/20/17 20:28	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	86.7		40 - 110	02/24/17 10:49	03/20/17 20:28	1				

Lab Sample ID: LCS 160-294401/2-A
Matrix: Water
Analysis Batch: 298257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294401

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	10.72		1.12	1.00	0.112	pCi/L	94	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	89.7		40 - 110	02/24/17 10:49	03/20/17 20:28	1			

Lab Sample ID: LCSD 160-294401/3-A
Matrix: Water
Analysis Batch: 298257

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294401

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
				Uncert. (2σ+/-)							
Radium-226	11.4	11.08		1.15	1.00	0.0841	pCi/L	98	68 - 137	0.16	1
Carrier	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed						
Ba Carrier	90.9		40 - 110	02/24/17 11:38	03/20/17 05:31	1					

Lab Sample ID: MB 160-294408/1-A
Matrix: Water
Analysis Batch: 298257

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294408

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.05460	U	0.0635	0.0637	1.00	0.102	pCi/L	02/24/17 11:38	03/20/17 05:31	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	87.3		40 - 110	02/24/17 11:38	03/20/17 05:31	1				

Lab Sample ID: LCS 160-294408/2-A
Matrix: Water
Analysis Batch: 298257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294408

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	11.21		1.19	1.00	0.127	pCi/L	99	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

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

Lab Sample ID: LCS 160-294408/2-A
Matrix: Water
Analysis Batch: 298257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294408

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	88.5		40 - 110

Lab Sample ID: 400-133961-4 DU
Matrix: Water
Analysis Batch: 298257

Client Sample ID: AX03173 MW-18
Prep Type: Total/NA
Prep Batch: 294408

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.127		0.1286		0.0866	1.00	0.113	pCi/L	0.01	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.0		40 - 110

Lab Sample ID: 400-133961-20 DU
Matrix: Water
Analysis Batch: 298258

Client Sample ID: AX03189 MW-12
Prep Type: Total/NA
Prep Batch: 294408

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.110	U	0.1431		0.0913	1.00	0.121	pCi/L	0.17	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	83.2		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-294407/1-A
Matrix: Water
Analysis Batch: 297297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294407

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.03249	U	0.238	0.238	1.00	0.431	pCi/L	02/24/17 11:31	03/11/17 14:43	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.7		40 - 110	02/24/17 11:31	03/11/17 14:43	1
Y Carrier	83.7		40 - 110	02/24/17 11:31	03/11/17 14:43	1

Lab Sample ID: LCS 160-294407/2-A
Matrix: Water
Analysis Batch: 297297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294407

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	13.59		1.49	1.00	0.394	pCi/L	99	56 - 140

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-294407/2-A
Matrix: Water
Analysis Batch: 297297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294407

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.7		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: LCSD 160-294407/3-A
Matrix: Water
Analysis Batch: 297297

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294407

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	13.7	13.97		1.51	1.00	0.370	pCi/L	102	56 - 140	0.13	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	90.9		40 - 110
Y Carrier	87.5		40 - 110

Lab Sample ID: MB 160-294412/1-A
Matrix: Water
Analysis Batch: 297320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294412

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1440	U	0.199	0.199	1.00	0.387	pCi/L	02/24/17 12:24	03/13/17 18:12	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		40 - 110	02/24/17 12:24	03/13/17 18:12	1
Y Carrier	86.0		40 - 110	02/24/17 12:24	03/13/17 18:12	1

Lab Sample ID: LCS 160-294412/2-A
Matrix: Water
Analysis Batch: 297320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294412

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	14.00		1.53	1.00	0.413	pCi/L	102	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	88.5		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 400-133961-4 DU
Matrix: Water
Analysis Batch: 297320

Client Sample ID: AX03173 MW-18
Prep Type: Total/NA
Prep Batch: 294412

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.212	U	0.06758	U	0.218	1.00	0.379	pCi/L	0.61	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-133961-4 DU
Matrix: Water
Analysis Batch: 297320

Client Sample ID: AX03173 MW-18
Prep Type: Total/NA
Prep Batch: 294412

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.0		40 - 110
Y Carrier	90.8		40 - 110

Lab Sample ID: 400-133961-20 DU
Matrix: Water
Analysis Batch: 297321

Client Sample ID: AX03189 MW-12
Prep Type: Total/NA
Prep Batch: 294412

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER
										Limit
Radium-228	0.424	U	0.07243	U	0.229	1.00	0.399	pCi/L	0.67	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	83.2		40 - 110
Y Carrier	85.6		40 - 110

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

Lab Sample ID: 400-133961-4 DU
Matrix: Water
Analysis Batch: 298860

Client Sample ID: AX03173 MW-18
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	-0.0851	U	0.1961	U	0.234	5.00	0.379	pCi/L	0.57	

Lab Sample ID: 400-133961-20 DU
Matrix: Water
Analysis Batch: 298860

Client Sample ID: AX03189 MW-12
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	0.535		0.2156	U	0.246	5.00	0.399	pCi/L	0.58	

Chain of Custody Record

Client Information Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project #: 40007143 CCR Site: Gorgas Ash Pond (5)		Sample: Anthony Goggins/ Jason Rouss Phone: Sarah Copeland Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: 1 of 2 Job #:						
Due Date Requested: TAT Requested (days): PO #:		Analysis Requested  400-133961 COC Total Number of Containers:		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OHS E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Anchlor 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:						
Field Filled Sample (Yes or No) <input checked="" type="checkbox"/> No Perform MS/MS/D (Yes or No) <input checked="" type="checkbox"/> No 9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc		Special Instructions/Note: MW-7 MW-19 MW-19 Dup (Sample Duplicate) MW-18 MW-2 MW-16D MW-17 MW-21 FB-2 (Field Blank) MW-15 EB-1 (Equipment Blank) MW-14		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:						
Sample Identification	Sample Date	Sample Time	Sample Type (C-Comp, G-grab)	Matrix (W-water, S-solid, O-organic, BT-Tissue, AP-As)	Preservation Code	Field Filled Sample (Yes or No)	Perform MS/MS/D (Yes or No)	9315_Ra226, 9320_Ra228, Ra228Ra228_GFPc	Total Number of Containers	Special Instructions/Note
AX03170	2/6/17	1553	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03171	2/7/17	0923	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03172	2/7/17	0923	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03173	2/8/17	0953	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03174	2/8/17	1148	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03175	2/8/17	1340	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03176	2/8/17	1425	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03177	2/8/17	0957	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03178	2/8/17	1018	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03179	2/8/17	1330	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03180	2/8/17	1405	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
AX03181	2/8/17	1540	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										
Deliverable Requested: I, II, III, IV, Other (specify)										
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 2/13/2017; 1015 Company APC Relinquished by: _____ Date/Time: _____ Company Relinquished by: _____ Date/Time: _____ Company Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No										



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			Lab PM: Whitimine, Cheyenne R			Carrier Tracking No(s):			COC No: 400-56525-24537.1		
Client Contact: Sarah Copeland			Phone: Ben Rothschild			E-Mail: cheyenne.whitimire@testamericainc.com			Page: 2 of 2		
Company: Alabama Power General Test Laboratory			Due Date Requested:			Analysis Requested			Job #:		
Address: 744 County Rd 87 GSC #8			TAT Requested (days):			Total Number of Containers			Preservation Codes:		
City: Calera			Routine			Field Filtered Sample (Yes or No)			M - Hexane		
State Zip: AL, 35040			PO #:			Perform (MS/SD) (Yes or No)			N - None		
Phone: 205-664-6121(Tel)			WO #:			9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc			O - AsH2O2		
Email: sgcopela@southernco.com			Project #:						P - Na2O4S		
Project Name: CCR			40007143						Q - Na2SO3		
Site: Gorgas Ash Pond (5)			SSOW#:						R - Na2SO3		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BT=Blank, A=All)	Preservation Code	Field Filtered Sample (Yes or No)	Perform (MS/SD) (Yes or No)	9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:	
AX03182	2/6/17	1305	G	Water				X		MW-8D	
AX03183	2/6/17	1405	G	Water				X		MW-8S	
AX03184	2/6/17	1635	G	Water				X		MW-8	
AX03185	2/8/17	0920	G	Water				X		MW-9	
AX03186	2/8/17	0920	G	Water				X		MW-9 Dup (Sample Duplicate)	
AX03187	2/8/17	1057	G	Water				X		MW-11	
AX03188	2/8/17	1125	G	Water				X		FB-1 (Field Blank)	
AX03189	2/8/17	1325	G	Water			Y	X		MW-12	
AX03190	2/8/17	1457	G	Water				X		MW-13	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:											
Empty Kit Relinquished by:			Date:			Time:			Method of Shipment:		
Relinquished by: Sarah Copeland			Date/Time: 2/13/2017, 10:15			Company: APC			Date/Time: 2/14/2017 16:54		
Relinquished by:			Date/Time:			Company:			Date/Time:		
Relinquished by:			Date/Time:			Company:			Date/Time:		
Custody Seals Intact:			Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:					
Δ Yes Δ No											



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-133961-1
SDG Number: Gorgas Ash Pond (5)

Login Number: 133961

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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	3/6/17-0.9°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	



Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

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
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 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 *

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-1
 SDG: Gorgas Ash Pond (5)

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
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 *

* 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: 400-133961-2

TestAmerica Sample Delivery Group: Gorgas Ash Pond (5)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

3/8/2017 1:48:16 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12



Table of Contents

Cover Page	1
Table of Contents	2
Method Summary	3
Sample Summary	4
Client Sample Results	5
Definitions	8
Chronicle	9
QC Association	13
QC Sample Results	14
Chain of Custody	16
Receipt Checklists	18
Certification Summary	19

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Method	Method Description	Protocol	Laboratory
SM 4500 F C	Fluoride	SM	TAL PEN

Protocol References:

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

Laboratory References:

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

1

2

3

4

5

6

7

8

9

10

11

12

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133961-1	AX03170 MW-7	Water	02/06/17 15:53	02/14/17 16:54
400-133961-2	AX03171 MW-19	Water	02/07/17 09:23	02/14/17 16:54
400-133961-3	AX03172 MW-19 DUP	Water	02/07/17 09:23	02/14/17 16:54
400-133961-4	AX03173 MW-18	Water	02/08/17 09:53	02/14/17 16:54
400-133961-5	AX03174 MW-2	Water	02/08/17 11:48	02/14/17 16:54
400-133961-6	AX03175 MW-16D	Water	02/08/17 13:40	02/14/17 16:54
400-133961-7	AX03176 MW-17	Water	02/06/17 14:25	02/14/17 16:54
400-133961-8	AX03177 MW-21	Water	02/08/17 09:57	02/14/17 16:54
400-133961-9	AX03178 FB-2	Water	02/08/17 10:18	02/14/17 16:54
400-133961-10	AX03179 MW-15	Water	02/08/17 13:30	02/14/17 16:54
400-133961-11	AX03180 EB-1	Water	02/08/17 14:05	02/14/17 16:54
400-133961-12	AX03181 MW-14	Water	02/08/17 15:40	02/14/17 16:54
400-133961-13	AX03182 MW-6D	Water	02/06/17 13:05	02/14/17 16:54
400-133961-14	AX03183 MW-6S	Water	02/06/17 14:05	02/14/17 16:54
400-133961-15	AX03184 MW-8	Water	02/06/17 16:35	02/14/17 16:54
400-133961-16	AX03185 MW-9	Water	02/08/17 09:20	02/14/17 16:54
400-133961-17	AX03186 MW-9 DUP	Water	02/08/17 09:20	02/14/17 16:54
400-133961-18	AX03187 MW-11	Water	02/08/17 10:57	02/14/17 16:54
400-133961-19	AX03188 FB-1	Water	02/08/17 11:25	02/14/17 16:54
400-133961-20	AX03189 MW-12	Water	02/08/17 13:25	02/14/17 16:54
400-133961-21	AX03190 MW-13	Water	02/08/17 14:57	02/14/17 16:54

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03170 MW-7

Date Collected: 02/06/17 15:53

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.070	J	0.10	0.032	mg/L	-		03/06/17 11:54	1

Client Sample ID: AX03171 MW-19

Date Collected: 02/07/17 09:23

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.38		0.10	0.032	mg/L	-		03/06/17 11:32	1

Client Sample ID: AX03172 MW-19 DUP

Date Collected: 02/07/17 09:23

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.37		0.10	0.032	mg/L	-		03/06/17 11:34	1

Client Sample ID: AX03173 MW-18

Date Collected: 02/08/17 09:53

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.34		0.10	0.032	mg/L	-		03/06/17 11:36	1

Client Sample ID: AX03174 MW-2

Date Collected: 02/08/17 11:48

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.6		0.10	0.032	mg/L	-		03/06/17 11:38	1

Client Sample ID: AX03175 MW-16D

Date Collected: 02/08/17 13:40

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.10		0.10	0.032	mg/L	-		03/06/17 11:40	1

Client Sample ID: AX03176 MW-17

Date Collected: 02/06/17 14:25

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.20		0.10	0.032	mg/L	-		03/06/17 11:42	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03177 MW-21

Lab Sample ID: 400-133961-8

Date Collected: 02/08/17 09:57

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.25		0.10	0.032	mg/L			03/06/17 11:45	1

Client Sample ID: AX03178 FB-2

Lab Sample ID: 400-133961-9

Date Collected: 02/08/17 10:18

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			03/06/17 11:56	1

Client Sample ID: AX03179 MW-15

Lab Sample ID: 400-133961-10

Date Collected: 02/08/17 13:30

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.56		0.10	0.032	mg/L			03/06/17 11:59	1

Client Sample ID: AX03180 EB-1

Lab Sample ID: 400-133961-11

Date Collected: 02/08/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			03/06/17 11:26	1

Client Sample ID: AX03181 MW-14

Lab Sample ID: 400-133961-12

Date Collected: 02/08/17 15:40

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.15		0.10	0.032	mg/L			03/06/17 12:01	1

Client Sample ID: AX03182 MW-6D

Lab Sample ID: 400-133961-13

Date Collected: 02/06/17 13:05

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.11		0.10	0.032	mg/L			03/06/17 12:03	1

Client Sample ID: AX03183 MW-6S

Lab Sample ID: 400-133961-14

Date Collected: 02/06/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.10	0.032	mg/L			03/06/17 12:05	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
 SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03184 MW-8

Lab Sample ID: 400-133961-15

Date Collected: 02/06/17 16:35

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.10		0.10	0.032	mg/L			03/06/17 12:08	1

Client Sample ID: AX03185 MW-9

Lab Sample ID: 400-133961-16

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.10		0.10	0.032	mg/L			03/06/17 12:10	1

Client Sample ID: AX03186 MW-9 DUP

Lab Sample ID: 400-133961-17

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.10		0.10	0.032	mg/L			03/06/17 12:12	1

Client Sample ID: AX03187 MW-11

Lab Sample ID: 400-133961-18

Date Collected: 02/08/17 10:57

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.11		0.10	0.032	mg/L			03/06/17 15:28	1

Client Sample ID: AX03188 FB-1

Lab Sample ID: 400-133961-19

Date Collected: 02/08/17 11:25

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			03/06/17 15:29	1

Client Sample ID: AX03189 MW-12

Lab Sample ID: 400-133961-20

Date Collected: 02/08/17 13:25

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.79		0.10	0.032	mg/L			03/06/17 15:31	1

Client Sample ID: AX03190 MW-13

Lab Sample ID: 400-133961-21

Date Collected: 02/08/17 14:57

Matrix: Water

Date Received: 02/14/17 16:54

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.16		0.10	0.032	mg/L			03/06/17 14:53	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate 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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03170 MW-7

Date Collected: 02/06/17 15:53

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-1

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	344644	03/06/17 11:54	BAB	TAL PEN

Client Sample ID: AX03171 MW-19

Date Collected: 02/07/17 09:23

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-2

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	344644	03/06/17 11:32	BAB	TAL PEN

Client Sample ID: AX03172 MW-19 DUP

Date Collected: 02/07/17 09:23

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-3

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	344644	03/06/17 11:34	BAB	TAL PEN

Client Sample ID: AX03173 MW-18

Date Collected: 02/08/17 09:53

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-4

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	344644	03/06/17 11:36	BAB	TAL PEN

Client Sample ID: AX03174 MW-2

Date Collected: 02/08/17 11:48

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-5

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	344644	03/06/17 11:38	BAB	TAL PEN

Client Sample ID: AX03175 MW-16D

Date Collected: 02/08/17 13:40

Date Received: 02/14/17 16:54

Lab Sample ID: 400-133961-6

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	344644	03/06/17 11:40	BAB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03176 MW-17

Lab Sample ID: 400-133961-7

Date Collected: 02/06/17 14:25

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 11:42	BAB	TAL PEN

Client Sample ID: AX03177 MW-21

Lab Sample ID: 400-133961-8

Date Collected: 02/08/17 09:57

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 11:45	BAB	TAL PEN

Client Sample ID: AX03178 FB-2

Lab Sample ID: 400-133961-9

Date Collected: 02/08/17 10:18

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 11:56	BAB	TAL PEN

Client Sample ID: AX03179 MW-15

Lab Sample ID: 400-133961-10

Date Collected: 02/08/17 13:30

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 11:59	BAB	TAL PEN

Client Sample ID: AX03180 EB-1

Lab Sample ID: 400-133961-11

Date Collected: 02/08/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 11:26	BAB	TAL PEN

Client Sample ID: AX03181 MW-14

Lab Sample ID: 400-133961-12

Date Collected: 02/08/17 15:40

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 12:01	BAB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03182 MW-6D

Lab Sample ID: 400-133961-13

Date Collected: 02/06/17 13:05

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 12:03	BAB	TAL PEN

Client Sample ID: AX03183 MW-6S

Lab Sample ID: 400-133961-14

Date Collected: 02/06/17 14:05

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 12:05	BAB	TAL PEN

Client Sample ID: AX03184 MW-8

Lab Sample ID: 400-133961-15

Date Collected: 02/06/17 16:35

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 12:08	BAB	TAL PEN

Client Sample ID: AX03185 MW-9

Lab Sample ID: 400-133961-16

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 12:10	BAB	TAL PEN

Client Sample ID: AX03186 MW-9 DUP

Lab Sample ID: 400-133961-17

Date Collected: 02/08/17 09:20

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344644	03/06/17 12:12	BAB	TAL PEN

Client Sample ID: AX03187 MW-11

Lab Sample ID: 400-133961-18

Date Collected: 02/08/17 10:57

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344677	03/06/17 15:28	BAB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
SDG: Gorgas Ash Pond (5)

Client Sample ID: AX03188 FB-1

Lab Sample ID: 400-133961-19

Date Collected: 02/08/17 11:25

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344677	03/06/17 15:29	BAB	TAL PEN

Client Sample ID: AX03189 MW-12

Lab Sample ID: 400-133961-20

Date Collected: 02/08/17 13:25

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344677	03/06/17 15:31	BAB	TAL PEN

Client Sample ID: AX03190 MW-13

Lab Sample ID: 400-133961-21

Date Collected: 02/08/17 14:57

Matrix: Water

Date Received: 02/14/17 16:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	344677	03/06/17 14:53	BAB	TAL PEN

Laboratory References:

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

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
 SDG: Gorgas Ash Pond (5)

General Chemistry

Analysis Batch: 344644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-1	AX03170 MW-7	Total/NA	Water	SM 4500 F C	
400-133961-2	AX03171 MW-19	Total/NA	Water	SM 4500 F C	
400-133961-3	AX03172 MW-19 DUP	Total/NA	Water	SM 4500 F C	
400-133961-4	AX03173 MW-18	Total/NA	Water	SM 4500 F C	
400-133961-5	AX03174 MW-2	Total/NA	Water	SM 4500 F C	
400-133961-6	AX03175 MW-16D	Total/NA	Water	SM 4500 F C	
400-133961-7	AX03176 MW-17	Total/NA	Water	SM 4500 F C	
400-133961-8	AX03177 MW-21	Total/NA	Water	SM 4500 F C	
400-133961-9	AX03178 FB-2	Total/NA	Water	SM 4500 F C	
400-133961-10	AX03179 MW-15	Total/NA	Water	SM 4500 F C	
400-133961-11	AX03180 EB-1	Total/NA	Water	SM 4500 F C	
400-133961-12	AX03181 MW-14	Total/NA	Water	SM 4500 F C	
400-133961-13	AX03182 MW-6D	Total/NA	Water	SM 4500 F C	
400-133961-14	AX03183 MW-6S	Total/NA	Water	SM 4500 F C	
400-133961-15	AX03184 MW-8	Total/NA	Water	SM 4500 F C	
400-133961-16	AX03185 MW-9	Total/NA	Water	SM 4500 F C	
400-133961-17	AX03186 MW-9 DUP	Total/NA	Water	SM 4500 F C	
MB 400-344644/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-344644/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-133961-11 MS	AX03180 EB-1	Total/NA	Water	SM 4500 F C	
400-133961-11MSD	AX03180 EB-1	Total/NA	Water	SM 4500 F C	
400-133961-1 DU	AX03170 MW-7	Total/NA	Water	SM 4500 F C	

Analysis Batch: 344677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133961-18	AX03187 MW-11	Total/NA	Water	SM 4500 F C	
400-133961-19	AX03188 FB-1	Total/NA	Water	SM 4500 F C	
400-133961-20	AX03189 MW-12	Total/NA	Water	SM 4500 F C	
400-133961-21	AX03190 MW-13	Total/NA	Water	SM 4500 F C	
MB 400-344677/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-344677/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-133961-21 MS	AX03190 MW-13	Total/NA	Water	SM 4500 F C	
400-133961-21 MSD	AX03190 MW-13	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
 SDG: Gorgas Ash Pond (5)

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-344644/4
Matrix: Water
Analysis Batch: 344644

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			03/06/17 10:35	1

Lab Sample ID: LCS 400-344644/5
Matrix: Water
Analysis Batch: 344644

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: 400-133961-11 MS
Matrix: Water
Analysis Batch: 344644

Client Sample ID: AX03180 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.970		mg/L		97	75 - 125

Lab Sample ID: 400-133961-11MSD
Matrix: Water
Analysis Batch: 344644

Client Sample ID: AX03180 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.0100		1.00	0.970		mg/L		97	75 - 125	0	4

Lab Sample ID: 400-133961-1 DU
Matrix: Water
Analysis Batch: 344644

Client Sample ID: AX03170 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.070	J	0.0700	J	mg/L		0	4

Lab Sample ID: MB 400-344677/3
Matrix: Water
Analysis Batch: 344677

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			03/06/17 14:45	1

Lab Sample ID: LCS 400-344677/4
Matrix: Water
Analysis Batch: 344677

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: 400-133961-21 MS
Matrix: Water
Analysis Batch: 344677

Client Sample ID: AX03190 MW-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.16		1.00	1.17		mg/L		101	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
 SDG: Gorgas Ash Pond (5)

Lab Sample ID: 400-133961-21 MSD
Matrix: Water
Analysis Batch: 344677

Client Sample ID: AX03190 MW-13
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.16		1.00	1.17		mg/L		101	75 - 125	0	4

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

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

Chain of Custody Record



Client Information Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Gorgas Ash Pond (5)		Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com Carrier Tracking No(s): Lab Mail: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com		COC No: 400-56525-24537.1 Page: Page 1 of 2 Job #:					
Due Date Requested: TAT Requested (days): RUSH (see email) PO #: WO #: Project #: 40007143 CCR: Site: Gorgas Ash Pond (5)		Analysis Requested  400-133961 COC							
Sample Identification	Sample Date	Sample Time	Sample Type (C-comp, G-grab)	Matrix (view water, Solid, Overstock, etc - tissue, A=air)	Field Filtered Sample (Yes or No)	Field ID (MSD, WSP, or N)	SM 4500 F ₂	Preservation Code	Special Instructions/Note:
AX03170	2/8/17	1553	G	Water	X	X	X	MMW-7	1
AX03171	2/7/17	0923	G	Water	X	X	X	MMW-19	1
AX03172	2/7/17	0923	G	Water	X	X	X	MMW-19 Dup (Sample Duplicate)	1
AX03173	2/8/17	0953	G	Water	X	X	X	MMW-18	1
AX03174	2/8/17	1148	G	Water	X	X	X	MMW-27	1
AX03175	2/8/17	1340	G	Water	X	X	X	MMW-16 D	1
AX03176	2/6/17	1425	G	Water	X	X	X	MMW-17	1
AX03177	2/8/17	0957	G	Water	X	X	X	MMW-21	1
AX03178	2/8/17	1018	G	Water	X	X	X	FB-2 (Field Blank)	1
AX03179	2/8/17	1330	G	Water	X	X	X	MMW-15	1
AX03180	2/8/17	1405	G	Water	Y	X	X	EB-1 (Equipment Blank)	1
AX03181	2/8/17	1540	G	Water	X	X	X	MMW-14	1
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 03/04/2017, 0630 Company: APC Relinquished by: <u>Brandon Kennedy</u> Date/Time: <u>3/5/17</u> <u>1113</u> Company: <u>THL</u> Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks: <u>0.9°C IR-7</u>									



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: Ben Rothschild		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 2 of 2		Job #:	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Preservation Codes:		M - Hexane N - None O - Acetic Acid P - Nitro Q - Nitro R - Nitro S - Nitro T - TSP Dodecylsulfate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify)	
Address: 744 County Rd 87 GSC #8		City: Calera		State, Zip: AL, 35040		PO #:		WO #:	
Phone: 205-664-6121 (Tel)		Email: sgcopel@alpower.com		Project #: 40007143		CCR		Site: Gorgas Ash Pond (5)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=biological, A=air)	
AX03182		2/6/17		1305		G		Water	
AX03183		2/6/17		1405		G		Water	
AX03184		2/6/17		1635		G		Water	
AX03185		2/8/17		0920		G		Water	
AX03186		2/8/17		0920		G		Water	
AX03187		2/8/17		1057		G		Water	
AX03188		2/8/17		1125		G		Water	
AX03189		2/8/17		1325		G		Water	
AX03190		2/8/17		1457		G		Water	
Possible Hazard Identification		Non-Hazard <input type="checkbox"/>		Flammable <input type="checkbox"/>		Skin Irritant <input type="checkbox"/>		Poison B <input type="checkbox"/>	
Deliverable Requested: I, II, III, IV, Other (specify)		Unknown <input type="checkbox"/>		Radiological <input type="checkbox"/>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>	
Empty Kit Relinquished by: Sarah Copeland		Date/Time: 03/04/2017; 0630		Company: APC		Date/Time: 3/5/17		Company: APC	
Relinquished by: <i>Sarah Copeland</i>		Date/Time: 3/5/17		Company: APC		Date/Time: 3/5/17		Company: APC	
Relinquished by: <i>Standard Kennedy</i>		Date/Time: 3/5/17		Company: APC		Date/Time: 3/5/17		Company: APC	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.9°C IR-7		Special Instructions/QC Requirements:		Archive For: _____ Months	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-133961-2
SDG Number: Gorgas Ash Pond (5)

Login Number: 133961

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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	3/6/17-0.9°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	



Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-133961-2
 SDG: Gorgas Ash Pond (5)

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
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

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1085
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_1085

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anion analyses were outsourced to Test America, Pensacola. Test America provided the job narrative below:

**Job Narrative
400-135988-1
General Chemistry**

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with batch 349296 was outside control limits. Both sample results are less than 5 times the RL. The data are considered valid because the absolute difference is less than the RL.(400-135988-A-5 DU).

Method(s) SM 4500 F C: The sample's pH was >9. Added 1N HCl to sample to adjust pH to 8.3. AX07166 MW-21 DUP (400-135988-10)

Method(s) SM 4500 F C: The sample's pH was >9. Added 1N HCl to sample to adjust pH to 8.3. AX07165 MW-21 (400-135988-9)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 349351 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: AX07157 MW-6S (400-135988-1), AX07158 MW-6S DUP (400-135988-2), AX07159 MW-6D (400-135988-3), AX07161 MW-7 (400-135988-5), AX07163 MW-9 (400-135988-7) and AX07168 MW-18 (400-135988-12). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 349656 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 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 349669 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 sample was non-detect in the original analysis but was associated with batch QC outside of the method criteria. The sample was re-analyzed on two occasions. One of the two re-analyses was also non-detect, however the detection in the other re-analysis (potentially due to carry-over from previous sample) was reported in error. The report has been revised accordingly. AX07308 EB-1 (400-135988-20)



Metals ICP

Gorgas Ash Pond

WMWGORAP_1085

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX07157	20170412A & 20170414B	WMWGORAP_1085
AX07158	20170412A & 20170414B	WMWGORAP_1085
AX07159	20170412A & 20170414B	WMWGORAP_1085
AX07160	20170412A & 20170414B	WMWGORAP_1085
AX07161	20170412A & 20170414B	WMWGORAP_1085
AX07162	20170412A & 20170414B	WMWGORAP_1085
AX07163	20170412A & 20170414B	WMWGORAP_1085
AX07164	20170412A & 20170414B	WMWGORAP_1085
AX07165	20170412A & 20170414B	WMWGORAP_1085
AX07166	20170412A & 20170414B	WMWGORAP_1085
AX07167	20170412B & 20170414C	WMWGORAP_1085
AX07168	20170412B & 20170414C	WMWGORAP_1085
AX07169	20170412B & 20170414C	WMWGORAP_1085
AX07170	20170412B & 20170414C	WMWGORAP_1085
AX07303	20170412B & 20170414C	WMWGORAP_1085
AX07304	20170412B & 20170414C	WMWGORAP_1085
AX07305	20170412B & 20170414C	WMWGORAP_1085
AX07306	20170412B & 20170414C	WMWGORAP_1085
AX07307	20170412B & 20170414C	WMWGORAP_1085
AX07308	20170412B & 20170414C	WMWGORAP_1085
AX07409	20170412C & 20170503	WMWGORAP_1085

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes. An additional rinse and CCV for Li were analyzed between samples for possible matrix issues.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard read backs associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met, with the following exception:

<u>Analyte</u>	<u>Sample ID</u>
Lithium	AX07409

A post dilution spike and serial dilutions were performed with failing recovery indicating a matrix effect on the sample.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at x2 dilution due to possible matrix issues. All samples were analyzed at x2 dilution with the following exceptions: samples listed below were diluted due to analyzed sample concentrations over the high standard of the calibration curve.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative



Sample ID	Analyte	Dilution Factor
AX07163	Calcium	x10
AX07168	Calcium	x10

8. The raw data results include results corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1085

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX07157	591286	WMWGORAP_1085
AX07158	591286	WMWGORAP_1085
AX07159	591286	WMWGORAP_1085
AX07160	591286	WMWGORAP_1085
AX07161	591286	WMWGORAP_1085
AX07162	591286	WMWGORAP_1085
AX07163	591286	WMWGORAP_1085
AX07164	591286	WMWGORAP_1085
AX07165	591286	WMWGORAP_1085
AX07166	591286	WMWGORAP_1085
AX07167	591309	WMWGORAP_1085
AX07168	591309	WMWGORAP_1085
AX07169	591309	WMWGORAP_1085
AX07170	591309	WMWGORAP_1085
AX07303	591309	WMWGORAP_1085
AX07304	591309	WMWGORAP_1085
AX07305	591309	WMWGORAP_1085
AX07306	591309	WMWGORAP_1085
AX07307	591309	WMWGORAP_1085
AX07308	591309	WMWGORAP_1085
AX07409	591321	WMWGORAP_1085

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1085

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX07157	591364	WMWGORAP_1085
AX07158	591364	WMWGORAP_1085
AX07159	591364	WMWGORAP_1085
AX07160	591364	WMWGORAP_1085
AX07161	591364	WMWGORAP_1085
AX07162	591364	WMWGORAP_1085
AX07163	591364	WMWGORAP_1085
AX07164	591364	WMWGORAP_1085
AX07165	591364	WMWGORAP_1085
AX07166	591364	WMWGORAP_1085
AX07167	591365	WMWGORAP_1085
AX07168	591365	WMWGORAP_1085
AX07169	591365	WMWGORAP_1085
AX07170	591365	WMWGORAP_1085
AX07303	591365	WMWGORAP_1085
AX07304	591365	WMWGORAP_1085
AX07305	591365	WMWGORAP_1085
AX07306	591365	WMWGORAP_1085
AX07307	591365	WMWGORAP_1085
AX07308	591365	WMWGORAP_1085
AX07409	591436	WMWGORAP_1085

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory except for standard 5 of the calibration curve used to calibrate batches 591364 & 591365. The first run of that standard had drops and rises in the response signal, so it was run a second time. The second response signal was good and was used for calibration.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1085

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX07157	590370	WMWGORAP_1085
AX07158	590370	WMWGORAP_1085
AX07159	590370	WMWGORAP_1085
AX07160	590370	WMWGORAP_1085
AX07161	590370	WMWGORAP_1085
AX07162	590370	WMWGORAP_1085
AX07163	590370	WMWGORAP_1085
AX07164	590370	WMWGORAP_1085
AX07165	590370	WMWGORAP_1085
AX07166	590370	WMWGORAP_1085
AX07167	590371	WMWGORAP_1085
AX07168	590371	WMWGORAP_1085
AX07169	590371	WMWGORAP_1085
AX07170	590371	WMWGORAP_1085
AX07303	590538	WMWGORAP_1085
AX07304	590538	WMWGORAP_1085
AX07305	590538	WMWGORAP_1085
AX07306	590538	WMWGORAP_1085
AX07307	590538	WMWGORAP_1085
AX07308	590538	WMWGORAP_1085
AX07409	590539	WMWGORAP_1085

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue, with the exception of AX07160, AX07170 & AX07308 which were <2.5mg.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX07157

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	0.00989	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.196	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	1.04	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	71.9	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	J 0.00224	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			50	554	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	25	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	J 0.070	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	40		56.0	200	290	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX07157

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX07157

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60	0.538	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AX07158

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	0.00979	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.198	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	1.04	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	71.8	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00219	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		50	592	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	25	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		40	56.0	200	300	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AX07158

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AX07158

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60		0.538
											5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX07159

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	0.0711	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.770	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	1.07	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	51.4	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.263	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00548	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	305	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	6.4	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.12	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		10	14.0	50	50	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX07159

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX07159

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60		0.538
											5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX07160

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX07160

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115	105	70 to 130	7.33	20
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115	106	70 to 130	5.92	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115	109	70 to 130	6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115	95.7	70 to 130	5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115	104	70 to 130	5.09	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115	97.1	70 to 130	8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115	104	70 to 130	5.10	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15	96.1	70 to 130	0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115	99.1	70 to 130	5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115	93.3	70 to 130	7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23	122	70 to 130	0.233	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115	100	70 to 130	7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75	95.1	70 to 130	0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046	99.3	70 to 130	1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115	103	70 to 130	7.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX07160

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60	0.538	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX07161

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	0.205	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0728	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	1.44	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	14.3	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.175	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.159	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	352	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		20	28.0	100	140	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX07161

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX07161

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60		0.538
											5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX07162

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	J 0.00109	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0183	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	5.28	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00322	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	91.0	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	3.3	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX07162

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX07162

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60		0.538
											5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX07163

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	0.00735	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0264	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	0.187	mg/L
* Calcium, Total	HRG	4/14/2017	EPA 200.7		10	1.00	5.0	84.1	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.108	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00752	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		50	472	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	2.3	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		30	42.0	150	170	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX07163

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX07163

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec		
			Limit	Limit			Duplicate	LFB	Limit	Limit		
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60		0.538	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX07164

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	J 0.00110	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0559	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	J 0.0706	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	3.13	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.0683	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00592	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		50	444	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	9.0	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.21	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	14	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX07164

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 27-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX07164

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60	0.538	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX07165

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	J 0.00153	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0446	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	J 0.0804	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	3.63	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.161	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0523	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		50	370	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	28	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.27	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	25	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX07165

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX07165

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60		0.538
											5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-21 Dup

Laboratory ID Number: AX07166

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	J 0.00165	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.0451	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	J 0.0806	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	3.61	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	0.162	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.0530	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			50	374	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	28	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	0.27	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	1		1.40	5.00	25	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-21 Dup

Laboratory ID Number: AX07166

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07166	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.106	0.114	0.103	0.085 to 0.115		105	70 to 130		7.33	20
AX07166	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.106	0.113	0.101	0.085 to 0.115		106	70 to 130		5.92	20
AX07166	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.142	0.154	0.0968	0.085 to 0.115		97.1	70 to 130		8.04	20
AX07166	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.157	0.165	0.100	0.085 to 0.115		104	70 to 130		5.10	20
AX07166	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.109	0.116	0.105	0.085 to 0.115		109	70 to 130		6.36	20
AX07166	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0957	0.101	0.0958	0.085 to 0.115		95.7	70 to 130		5.59	20
AX07166	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.104	0.109	0.102	0.085 to 0.115		104	70 to 130		5.09	20
AX07166	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.100	0.109	0.0959	0.085 to 0.115		100	70 to 130		7.76	20
AX07166	Calcium, Total	mg/L	-0.00393	0.22	5.00	8.37	8.36	4.85	4.25 to 5.75		95.1	70 to 130		0.104	20
AX07166	Mercury, Total by CVAA	mg/L	0.000138	0.0005	0.004	0.00397	0.00402	0.00368	0.0034 to 0.0046		99.3	70 to 130		1.05	20
AX07166	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.103	0.111	0.101	0.085 to 0.115		103	70 to 130		7.06	20
AX07166	Boron, Total	mg/L	-0.000588	0.044	1.00	1.04	1.03	0.980	0.85 to 1.15		96.1	70 to 130		0.660	20
AX07166	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0991	0.105	0.111	0.085 to 0.115		99.1	70 to 130		5.80	20
AX07166	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0933	0.100	0.103	0.085 to 0.115		93.3	70 to 130		7.21	20
AX07166	Lithium, Total	mg/L	0.0000173	0.022	0.20	0.406	0.405	0.209	0.17 to 0.23		122	70 to 130		0.233	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-21 Dup

Laboratory ID Number: AX07166

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07166	Solids, Dissolved	mg/L	-4.0	25			370	53.0	40 to 60	0.538	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX07167

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.391	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	J 0.0309	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	43.9	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	J 0.0309	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	J 0.00599	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			25	271	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	5.9	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	0.32	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	1		1.40	5.00	6.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX07167

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115	96.1	70 to 130	11.2	20	
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115	97.5	70 to 130	6.91	20	
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.48	20	
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115	93.4	70 to 130	8.78	20	
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115	90.8	70 to 130	8.51	20	
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115	95.0	70 to 130	7.95	20	
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046	101	70 to 130	0.676	20	
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115	99.1	70 to 130	7.87	20	
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15	96.8	70 to 130	0.490	20	
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75	98.1	70 to 130	0.470	20	
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.18	20	
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115	98.0	70 to 130	8.38	20	
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115	94.6	70 to 130	7.89	20	
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115	106	70 to 130	8.25	20	
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23	102	70 to 130	0.764	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX07167

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07169	Solids, Dissolved	mg/L	-4.0	25			223	53.0	40 to 60	0.225	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX07168

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	0.0668	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0581	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	1.62	mg/L
* Calcium, Total	HRG	4/14/2017	EPA 200.7		10	1.00	5.0	162	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.316	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0333	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		100	1100	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	35	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.36	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		40	56.0	200	610	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX07168

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115	96.1	70 to 130	11.2	20	
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115	97.5	70 to 130	6.91	20	
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115	95.0	70 to 130	7.95	20	
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046	101	70 to 130	0.676	20	
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115	99.1	70 to 130	7.87	20	
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.48	20	
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115	93.4	70 to 130	8.78	20	
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115	90.8	70 to 130	8.51	20	
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15	96.8	70 to 130	0.490	20	
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75	98.1	70 to 130	0.470	20	
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.18	20	
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115	98.0	70 to 130	8.38	20	
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115	94.6	70 to 130	7.89	20	
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115	106	70 to 130	8.25	20	
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23	102	70 to 130	0.764	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX07168

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07169	Solids, Dissolved	mg/L	-4.0	25			223	53.0	40 to 60	0.225	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX07169

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	J 0.00125	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.243	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	33.3	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	J 0.0488	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	222	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	5.5	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.15	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	14	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX07169

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115		95.0	70 to 130	7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046		101	70 to 130	0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115		99.1	70 to 130	7.87	20
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115		98.0	70 to 130	8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115		94.6	70 to 130	7.89	20
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115		106	70 to 130	8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23		102	70 to 130	0.764	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15		96.8	70 to 130	0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75		98.1	70 to 130	0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.18	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115		96.1	70 to 130	11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115		97.5	70 to 130	6.91	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115		93.4	70 to 130	8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115		90.8	70 to 130	8.51	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX07169

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07169	Solids, Dissolved	mg/L	-4.0	25			223	53.0	40 to 60	0.225	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX07170

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX07170

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit
			MB	Limit					Limit	Rec	Limit	Prec	
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115	98.0	70 to 130	8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115	94.6	70 to 130	7.89	20
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115	95.0	70 to 130	7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046	101	70 to 130	0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115	99.1	70 to 130	7.87	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115	93.4	70 to 130	8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115	90.8	70 to 130	8.51	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115	96.1	70 to 130	11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115	97.5	70 to 130	6.91	20
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115	106	70 to 130	8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23	102	70 to 130	0.764	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15	96.8	70 to 130	0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75	98.1	70 to 130	0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.18	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 28-Mar-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX07170

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07169	Solids, Dissolved	mg/L	-4.0	25			223	53.0	40 to 60	0.225	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX07303

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.226	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	44.4	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	J 0.0149	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	228	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	4.4	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	0.12	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	23	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX07303

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115		95.0	70 to 130	7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046		101	70 to 130	0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115		99.1	70 to 130	7.87	20
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115		106	70 to 130	8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23		102	70 to 130	0.764	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115		93.4	70 to 130	8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115		90.8	70 to 130	8.51	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115		96.1	70 to 130	11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115		97.5	70 to 130	6.91	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15		96.8	70 to 130	0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75		98.1	70 to 130	0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.18	20
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115		98.0	70 to 130	8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115		94.6	70 to 130	7.89	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX07303

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07307	Solids, Dissolved	mg/L	-6.0	25			218	41.0	40 to 60		0.230 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX07304

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	0.00558	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.288	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	J 0.0532	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	12.9	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	0.137	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.0331	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			25	305	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	5.2	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	0.59	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	1		1.40	5.00	27	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX07304

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130		8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115		93.4	70 to 130		8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115		90.8	70 to 130		8.51	20
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115		95.0	70 to 130		7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046		101	70 to 130		0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115		99.1	70 to 130		7.87	20
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115		106	70 to 130		8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23		102	70 to 130		0.764	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115		96.1	70 to 130		11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115		97.5	70 to 130		6.91	20
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115		98.0	70 to 130		8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115		94.6	70 to 130		7.89	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15		96.8	70 to 130		0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75		98.1	70 to 130		0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130		8.18	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 28-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX07304

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07307	Solids, Dissolved	mg/L	-6.0	25			218	41.0	40 to 60		0.230 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX07305

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	0.0404	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.116	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	0.246	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	31.8	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	J 0.0308	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			25	334	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	10	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	0.51	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	1		1.40	5.00	J 3.8	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX07305

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115		98.0	70 to 130		8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115		94.6	70 to 130		7.89	20
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115		106	70 to 130		8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23		102	70 to 130		0.764	20
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115		95.0	70 to 130		7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046		101	70 to 130		0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115		99.1	70 to 130		7.87	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115		96.1	70 to 130		11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115		97.5	70 to 130		6.91	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130		8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115		93.4	70 to 130		8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115		90.8	70 to 130		8.51	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15		96.8	70 to 130		0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75		98.1	70 to 130		0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130		8.18	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX07305

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07307	Solids, Dissolved	mg/L	-6.0	25			218	41.0	40 to 60	0.230	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX07306

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.316	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	J 0.0247	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	32.7	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	J 0.0379	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			25	215	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	1		1.40	5.00	12	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX07306

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115		95.0	70 to 130	7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046		101	70 to 130	0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115		99.1	70 to 130	7.87	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115		93.4	70 to 130	8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115		90.8	70 to 130	8.51	20
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115		98.0	70 to 130	8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115		94.6	70 to 130	7.89	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115		96.1	70 to 130	11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115		97.5	70 to 130	6.91	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15		96.8	70 to 130	0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75		98.1	70 to 130	0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.18	20
AX07308	Cadmium, Total	mg/L	0.000000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115		106	70 to 130	8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23		102	70 to 130	0.764	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX07306

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07307	Solids, Dissolved	mg/L	-6.0	25			218	41.0	40 to 60		0.230 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX07307

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	0.184	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7	2		0.1	0.5	46.8	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7	2		0.01	0.05	J 0.0118	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C	1			25	217	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E	1		0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C	1		0.032	0.10	0.14	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E	1		1.40	5.00	11	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX07307

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115		95.0	70 to 130	7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046		101	70 to 130	0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115		99.1	70 to 130	7.87	20
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115		98.0	70 to 130	8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115		94.6	70 to 130	7.89	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115		96.1	70 to 130	11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115		97.5	70 to 130	6.91	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15		96.8	70 to 130	0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75		98.1	70 to 130	0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.18	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115		101	70 to 130	8.48	20
AX07308	Chromium, Total	mg/L	0.00000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115		93.4	70 to 130	8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115		90.8	70 to 130	8.51	20
AX07308	Cadmium, Total	mg/L	0.00000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115		106	70 to 130	8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23		102	70 to 130	0.764	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX07307

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07307	Solids, Dissolved	mg/L	-6.0	25			218	41.0	40 to 60	0.230	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX07308

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/11/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX07308

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit
			MB	Limit					Limit	Rec	Limit	Prec	
AX07308	Cadmium, Total	mg/L	0.00000583	0.00044	0.10	0.106	0.115	0.105	0.085 to 0.115	106	70 to 130	8.25	20
AX07308	Lithium, Total	mg/L	-0.00000664	0.022	0.20	0.203	0.205	0.208	0.17 to 0.23	102	70 to 130	0.764	20
AX07308	Beryllium, Total	mg/L	0.0000291	0.00132	0.10	0.0961	0.108	0.0959	0.085 to 0.115	96.1	70 to 130	11.2	20
AX07308	Selenium, Total	mg/L	0.0000571	0.0044	0.10	0.0975	0.105	0.102	0.085 to 0.115	97.5	70 to 130	6.91	20
AX07308	Antimony, Total	mg/L	0.0000498	0.00132	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.48	20
AX07308	Chromium, Total	mg/L	0.0000543	0.0044	0.10	0.0934	0.102	0.0958	0.085 to 0.115	93.4	70 to 130	8.78	20
AX07308	Lead, Total	mg/L	0.0000173	0.0022	0.10	0.0908	0.0989	0.103	0.085 to 0.115	90.8	70 to 130	8.51	20
AX07308	Cobalt, Total	mg/L	0.00000157	0.0044	0.10	0.0950	0.103	0.111	0.085 to 0.115	95.0	70 to 130	7.95	20
AX07308	Mercury, Total by CVAA	mg/L	0.000143	0.0005	0.004	0.00402	0.00405	0.00397	0.0034 to 0.0046	101	70 to 130	0.676	20
AX07308	Molybdenum, Total	mg/L	0.0000106	0.0044	0.10	0.0991	0.107	0.100	0.085 to 0.115	99.1	70 to 130	7.87	20
AX07308	Boron, Total	mg/L	0.0000676	0.044	1.00	0.968	0.963	0.968	0.85 to 1.15	96.8	70 to 130	0.490	20
AX07308	Calcium, Total	mg/L	-0.00391	0.22	5.00	4.90	4.88	5.08	4.25 to 5.75	98.1	70 to 130	0.470	20
AX07308	Thallium, Total	mg/L	0.0000170	0.00044	0.10	0.101	0.110	0.101	0.085 to 0.115	101	70 to 130	8.18	20
AX07308	Arsenic, Total	mg/L	0.0000128	0.0022	0.10	0.0980	0.107	0.103	0.085 to 0.115	98.0	70 to 130	8.38	20
AX07308	Barium, Total	mg/L	-0.00000840	0.0044	0.10	0.0946	0.102	0.0968	0.085 to 0.115	94.6	70 to 130	7.89	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 29-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX07308

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX07307	Solids, Dissolved	mg/L	-6.0	25			218	41.0	40 to 60	0.230	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 30-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX07409

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	0.0768	mg/L
* Beryllium, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/12/2017	EPA 200.7		2	0.02	0.1	J 0.0871	mg/L
* Calcium, Total	HRG	4/12/2017	EPA 200.7		2	0.1	0.5	0.686	mg/L
* Cadmium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	4/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	4/12/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/12/2017	EPA 200.7		2	0.01	0.05	0.0597	mg/L
* Molybdenum, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00485	mg/L
* Lead, Total	JHK	4/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	4/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	4/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/31/2017	SM 2540C		1		25	391	mg/L
* Chloride, Total, by Test America	SGC	4/18/2017	SM 4500 Cl_E		1	0.60	2.00	11	mg/L
* Fluoride, Total, by Test America	SGC	4/18/2017	SM 4500 F_C		1	0.032	0.10	1.5	mg/L
* Sulfate, Total, by Test America	SGC	4/18/2017	SM 4500 SO4_E		1	1.40	5.00	31	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010
 Recovery for Lithium failed high. A post-dilution spike and serial dilutions were performed to confirm matrix effect.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 30-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX07409

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX07409	Lead, Total	mg/L	0.0000246	0.0022	0.10	0.0939	0.0984	0.102	0.085 to 0.115	93.9	70 to 130	4.73	20	
AX07409	Calcium, Total	mg/L	-0.00217	0.22	5.00	5.46	5.49	4.89	4.25 to 5.75	95.6	70 to 130	0.513	20	
AX07409	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0958	0.101	0.0946	0.085 to 0.115	95.8	70 to 130	5.60	20	
AX07409	Mercury, Total by CVAA	mg/L	0.000141	0.0005	0.004	0.00398	0.00392	0.00356	0.0034 to 0.0046	99.5	70 to 130	1.50	20	
AX07409	Selenium, Total	mg/L	0.0000549	0.0044	0.10	0.0915	0.0988	0.101	0.085 to 0.115	91.5	70 to 130	7.67	20	
AX07409	Barium, Total	mg/L	0.00000144	0.0044	0.10	0.174	0.185	0.0970	0.085 to 0.115	97.0	70 to 130	6.19	20	
AX07409	Cadmium, Total	mg/L	0.00000507	0.00044	0.10	0.105	0.114	0.105	0.085 to 0.115	105	70 to 130	7.58	20	
AX07409	Lithium, Total	mg/L	0.00000296	0.022	0.20	0.329	0.328	0.213	0.17 to 0.23	135	70 to 130	0.262	20	
AX07409	Antimony, Total	mg/L	0.0000561	0.00132	0.10	0.102	0.109	0.102	0.085 to 0.115	102	70 to 130	6.16	20	
AX07409	Arsenic, Total	mg/L	0.0000189	0.0022	0.10	0.0993	0.107	0.104	0.085 to 0.115	99.3	70 to 130	7.42	20	
AX07409	Beryllium, Total	mg/L	0.0000407	0.00132	0.10	0.100	0.105	0.104	0.085 to 0.115	100	70 to 130	5.23	20	
AX07409	Molybdenum, Total	mg/L	0.0000130	0.0044	0.10	0.105	0.113	0.0995	0.085 to 0.115	100	70 to 130	6.80	20	
AX07409	Boron, Total	mg/L	0.000263	0.044	1.00	1.06	1.06	0.965	0.85 to 1.15	97.8	70 to 130	0.688	20	
AX07409	Cobalt, Total	mg/L	0.0000106	0.0044	0.10	0.0995	0.105	0.107	0.085 to 0.115	99.5	70 to 130	5.43	20	
AX07409	Thallium, Total	mg/L	0.0000290	0.00044	0.10	0.104	0.109	0.102	0.085 to 0.115	104	70 to 130	4.91	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010
 Recovery for Lithium failed high. A post-dilution spike and serial dilutions were performed to confirm matrix effect.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 30-Mar-17
 Customer ID:
 Delivery Date: 30-Mar-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX07409

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX07409	Solids, Dissolved	mg/L	-6.00	25				393	41.0	40 to 60			0.255	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010
 Recovery for Lithium failed high. A post-dilution spike and serial dilutions were performed to confirm matrix effect.

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/28/2017 15:30

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Ben Rothschild"/>	Location	<input type="text" value="Gorgas Ash Pond"/>
Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions"/>		
Comments	<input type="text" value="All anions outsourced to Test America."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	03/27/2017	12:00	4	Groundwater		AX07157
MW-6S DUP	03/27/2017	12:00	4	Sample Duplicate		AX07158
MW-6D	03/27/2017	13:02	4	Groundwater		AX07159
FB-1	03/27/2017	13:35	4	Field Blank		AX07160
MW-7	03/28/2017	09:30	4	Groundwater		AX07161
MW-8	03/28/2017	12:03	4	Groundwater		AX07162
MW-9	03/28/2017	13:38	4	Groundwater		AX07163

Relinquished By	Received By	Date/Time
 	 Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southerncco.com, c=US Date: 2017.03.28 16:58:34 -0500</small>	<input type="text" value="03/28/2017 14:15"/> <input type="text" value="03/28/2017 16:58"/>

SmarTroll ID	<input type="text" value="4696-23441-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="3901-20010-2-2"/>	Cooler Temp
		<input type="text" value="0.9 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="5521-28268-20-12"/>



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Gorgas Ash Pond"/>

Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions"/>
Comments	<input type="text" value="All anions outsourced to Test America."/>

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	03/27/2017	11:30	4	Groundwater		AX07164
MW-21	03/28/2017	10:55	4	Groundwater		AX07165
MW-21 Dup	03/28/2017	10:55	4	Sample Duplicate		AX07166

Relinquished By	Received By	Date/Time
		03/28/2017 14:34
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southemco.com, c=US Date: 2017.03.28 17:02:28 -0500</small>	03/28/2017 17:02

SmarTroll ID	<input type="text" value="4696-23443-3-2"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="4677-23342-4-1"/>	Cooler Temp
		<input type="text" value="0.5 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="5521-28268-20-12"/>



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Gorgas Ash Pond"/>
Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions"/>		
Comments	<input type="text" value="All anions outsourced to Test America."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19	03/28/2017	10:14	4	Groundwater		AX07167
MW-18	03/28/2017	11:27	4	Groundwater		AX07168
MW-14	03/28/2017	13:23	4	Groundwater		AX07169
FB-2	03/28/2017	11:45	4	Field Blank		AX07170

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.03.28 17:04:00 -05'00'</small>	03/28/2017 17:04

SmarTroll ID	<input type="text" value="5151-26193-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="3901-20009-2-1"/>	
Cooler Temp	<input type="text" value="0.5 degrees C"/>	
Thermometer ID	<input type="text" value="5408-27568-2-2"/>	
pH Strip ID	<input type="text" value="5521-28268-20-12"/>	



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/29/2017 15:30

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Ben Rothschild"/>	Location	<input type="text" value="Gorgas Ash Pond"/>

Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions"/>
Comments	<input type="text" value="All anions outsourced to Test America."/>

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11	03/28/2017	15:23	4	Groundwater		AX07303

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.03.29 15:56:25 -0500</small>	03/29/2017 15:56

SmarTroll ID	<input type="text" value="4696-23441-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="3901-20010-2-2"/>	Cooler Temp
		<input type="text" value="0.9 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="5521-28268-20-12"/>



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/29/2017 16:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions		
Comments	Relinquished to downstairs shipping lab in secure Building 8, General Services Complex at 1700. Received from downstairs shipping lab. All anions outsourced to Test America.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	03/28/2017	15:09	4	Groundwater		AX07304
MW-12	03/29/2017	09:51	4	Groundwater		AX07305
MW-16D	03/29/2017	11:51	4	Groundwater		AX07306
MW-13	03/29/2017	13:30	4	Groundwater		AX07307
EB-1	03/29/2017	14:00	4	Equipment Blank		AX07308

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.03.30 08:08:08 -05'00'</small>	03/30/2017 08:08

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	Cooler Temp
		0.0 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5521-28268-20-12



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/30/2017 14:00

Requested Complete Date	Routine
Site Representative	Che George
Collector	Ben Rothschild

Results To	Dustin Brooks, Greg Dyer
Requested By	Greg Dyer
Location	Gorgas Ash Pond

Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions
Comments	All anions outsourced to Test America. Samples received by Keith Kornegay 3/30/17, 1420

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	03/30/2017	11:35	4	Groundwater		AX07409

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.04.03 08:20:36 -0500</small>	04/03/2017 08:20

SmarTroll ID	4696-23441-1-1
Turbidity ID	3901-20010-2-2

All metals and radiological bottles have pH < 2

Cooler Temp	1.7 degrees C
Thermometer ID	4303-21829-1-1
pH Strip ID	5521-28264-20-8

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: 400-135988-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (6)

Client Project/Site: CCR Plant Gorgas

Revision: 1

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

5/25/2017 1:33:46 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13

14



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	13
Chronicle	14
QC Association	19
QC Sample Results	23
Chain of Custody	32
Receipt Checklists	34
Certification Summary	35

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Job ID: 400-135988-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-135988-1

General Chemistry

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with batch 349296 was outside control limits. Both sample results are less than 5 times the RL. The data are considered valid because the absolute difference is less than the RL.(400-135988-A-5 DU).

Method(s) SM 4500 F C: The sample's pH was >9. Added 1N HCl to sample to adjust pH to 8.3. AX07166 MW-21 DUP (400-135988-10)

Method(s) SM 4500 F C: The sample's pH was >9. Added 1N HCl to sample to adjust pH to 8.3. AX07165 MW-21 (400-135988-9)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 349351 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: AX07157 MW-6S (400-135988-1), AX07158 MW-6S DUP (400-135988-2), AX07159 MW-6D (400-135988-3), AX07161 MW-7 (400-135988-5), AX07163 MW-9 (400-135988-7) and AX07168 MW-18 (400-135988-12). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 349656 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 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 349669 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 sample was non-detect in the original analysis but was associated with batch QC outside of the method criteria. The sample was re-analyzed on two occasions. One of the two re-analyses was also non-detect, however the detection in the other re-analysis (potentially due to carry-over from previous sample) was reported in error. The report has been revised accordingly. AX07308 EB-1 (400-135988-20)

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07157 MW-6S

Lab Sample ID: 400-135988-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	290		200	56	mg/L	40		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07158 MW-6S DUP

Lab Sample ID: 400-135988-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	300		200	56	mg/L	40		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07159 MW-6D

Lab Sample ID: 400-135988-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	50		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07160 FB-1

Lab Sample ID: 400-135988-4

No Detections.

Client Sample ID: AX07161 MW-7

Lab Sample ID: 400-135988-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	140		100	28	mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07162 MW-8

Lab Sample ID: 400-135988-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07163 MW-9

Lab Sample ID: 400-135988-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		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	170		150	42	mg/L	30		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07164 MW-17

Lab Sample ID: 400-135988-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.21		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	14		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07165 MW-21

Lab Sample ID: 400-135988-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.27		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	25		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07166 MW-21 DUP

Lab Sample ID: 400-135988-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.27		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	25	F1	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07167 MW-19

Lab Sample ID: 400-135988-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.32		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	6.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07168 MW-18

Lab Sample ID: 400-135988-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.36		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	610		200	56	mg/L	40		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07169 MW-14

Lab Sample ID: 400-135988-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		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	14		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07170 FB-2

Lab Sample ID: 400-135988-14

No Detections.

Client Sample ID: AX07303 MW-11

Lab Sample ID: 400-135988-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4	F1	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	23		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07304 MW-15

Lab Sample ID: 400-135988-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.59		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	27		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07305 MW-12

Lab Sample ID: 400-135988-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.51		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07306 MW-16D

Lab Sample ID: 400-135988-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07307 MW-13

Lab Sample ID: 400-135988-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX07308 EB-1

Lab Sample ID: 400-135988-20

No Detections.

Client Sample ID: AX07409 MW-2

Lab Sample ID: 400-135988-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	1.5		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	31		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Method	Method Description	Protocol	Laboratory
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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135988-1	AX07157 MW-6S	Water	03/27/17 12:00	04/04/17 16:21
400-135988-2	AX07158 MW-6S DUP	Water	03/27/17 12:00	04/04/17 16:21
400-135988-3	AX07159 MW-6D	Water	03/27/17 13:02	04/04/17 16:21
400-135988-4	AX07160 FB-1	Water	03/27/17 13:35	04/04/17 16:21
400-135988-5	AX07161 MW-7	Water	03/28/17 09:30	04/04/17 16:21
400-135988-6	AX07162 MW-8	Water	03/28/17 12:03	04/04/17 16:21
400-135988-7	AX07163 MW-9	Water	03/28/17 13:38	04/04/17 16:21
400-135988-8	AX07164 MW-17	Water	03/27/17 11:30	04/04/17 16:21
400-135988-9	AX07165 MW-21	Water	03/28/17 10:55	04/04/17 16:21
400-135988-10	AX07166 MW-21 DUP	Water	03/28/17 10:55	04/04/17 16:21
400-135988-11	AX07167 MW-19	Water	03/28/17 10:14	04/04/17 16:21
400-135988-12	AX07168 MW-18	Water	03/28/17 11:27	04/04/17 16:21
400-135988-13	AX07169 MW-14	Water	03/28/17 13:23	04/04/17 16:21
400-135988-14	AX07170 FB-2	Water	03/28/17 11:45	04/04/17 16:21
400-135988-15	AX07303 MW-11	Water	03/28/17 15:23	04/04/17 16:21
400-135988-16	AX07304 MW-15	Water	03/28/17 15:09	04/04/17 16:21
400-135988-17	AX07305 MW-12	Water	03/29/17 09:51	04/04/17 16:21
400-135988-18	AX07306 MW-16D	Water	03/29/17 11:51	04/04/17 16:21
400-135988-19	AX07307 MW-13	Water	03/29/17 13:30	04/04/17 16:21
400-135988-20	AX07308 EB-1	Water	03/29/17 14:00	04/04/17 16:21
400-135988-21	AX07409 MW-2	Water	03/30/17 11:35	04/04/17 16:21

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07157 MW-6S

Lab Sample ID: 400-135988-1

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	0.60	mg/L			04/05/17 16:04	1
Fluoride	0.070	J	0.10	0.032	mg/L			04/11/17 13:16	1
Sulfate	290		200	56	mg/L			04/13/17 16:02	40

Client Sample ID: AX07158 MW-6S DUP

Lab Sample ID: 400-135988-2

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	0.60	mg/L			04/05/17 16:28	1
Fluoride	0.070	J	0.10	0.032	mg/L			04/11/17 13:18	1
Sulfate	300		200	56	mg/L			04/13/17 16:02	40

Client Sample ID: AX07159 MW-6D

Lab Sample ID: 400-135988-3

Date Collected: 03/27/17 13:02

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.4		2.0	0.60	mg/L			04/11/17 17:16	1
Fluoride	0.12		0.10	0.032	mg/L			04/11/17 13:20	1
Sulfate	50		50	14	mg/L			04/13/17 16:19	10

Client Sample ID: AX07160 FB-1

Lab Sample ID: 400-135988-4

Date Collected: 03/27/17 13:35

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/05/17 16:28	1
Fluoride	<0.032		0.10	0.032	mg/L			04/11/17 13:47	1
Sulfate	<1.4		5.0	1.4	mg/L			04/13/17 15:35	1

Client Sample ID: AX07161 MW-7

Lab Sample ID: 400-135988-5

Date Collected: 03/28/17 09:30

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			04/11/17 17:22	1
Fluoride	0.070	J	0.10	0.032	mg/L			04/11/17 13:42	1
Sulfate	140		100	28	mg/L			04/13/17 17:31	20

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07162 MW-8

Lab Sample ID: 400-135988-6

Date Collected: 03/28/17 12:03

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			04/11/17 17:22	1
Fluoride	0.080	J	0.10	0.032	mg/L			04/11/17 13:49	1
Sulfate	3.4	J	5.0	1.4	mg/L			04/13/17 17:06	1

Client Sample ID: AX07163 MW-9

Lab Sample ID: 400-135988-7

Date Collected: 03/28/17 13:38

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		2.0	0.60	mg/L			04/11/17 17:50	1
Fluoride	0.11		0.10	0.032	mg/L			04/11/17 13:51	1
Sulfate	170		150	42	mg/L			04/13/17 17:43	30

Client Sample ID: AX07164 MW-17

Lab Sample ID: 400-135988-8

Date Collected: 03/27/17 11:30

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.0		2.0	0.60	mg/L			04/05/17 16:28	1
Fluoride	0.21		0.10	0.032	mg/L			04/11/17 13:53	1
Sulfate	14		5.0	1.4	mg/L			04/13/17 15:35	1

Client Sample ID: AX07165 MW-21

Lab Sample ID: 400-135988-9

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		2.0	0.60	mg/L			04/11/17 17:50	1
Fluoride	0.27		0.10	0.032	mg/L			04/11/17 13:56	1
Sulfate	25		5.0	1.4	mg/L			04/13/17 17:07	1

Client Sample ID: AX07166 MW-21 DUP

Lab Sample ID: 400-135988-10

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		2.0	0.60	mg/L			04/11/17 17:50	1
Fluoride	0.27		0.10	0.032	mg/L			04/11/17 12:59	1
Sulfate	25	F1	5.0	1.4	mg/L			04/13/17 17:07	1

Client Sample ID: AX07167 MW-19

Lab Sample ID: 400-135988-11

Date Collected: 03/28/17 10:14

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		2.0	0.60	mg/L			04/11/17 17:50	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07167 MW-19

Lab Sample ID: 400-135988-11

Date Collected: 03/28/17 10:14

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.32		0.10	0.032	mg/L			04/11/17 13:58	1
Sulfate	6.4		5.0	1.4	mg/L			04/14/17 07:41	1

Client Sample ID: AX07168 MW-18

Lab Sample ID: 400-135988-12

Date Collected: 03/28/17 11:27

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35		2.0	0.60	mg/L			04/11/17 17:50	1
Fluoride	0.36		0.10	0.032	mg/L			04/11/17 14:00	1
Sulfate	610		200	56	mg/L			04/14/17 08:11	40

Client Sample ID: AX07169 MW-14

Lab Sample ID: 400-135988-13

Date Collected: 03/28/17 13:23

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		2.0	0.60	mg/L			04/11/17 17:50	1
Fluoride	0.15		0.10	0.032	mg/L			04/13/17 13:48	1
Sulfate	14		5.0	1.4	mg/L			04/14/17 07:41	1

Client Sample ID: AX07170 FB-2

Lab Sample ID: 400-135988-14

Date Collected: 03/28/17 11:45

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/11/17 18:37	1
Fluoride	<0.032		0.10	0.032	mg/L			04/13/17 13:50	1
Sulfate	<1.4		5.0	1.4	mg/L			04/14/17 07:41	1

Client Sample ID: AX07303 MW-11

Lab Sample ID: 400-135988-15

Date Collected: 03/28/17 15:23

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4	F1	2.0	0.60	mg/L			04/11/17 18:37	1
Fluoride	0.12		0.10	0.032	mg/L			04/13/17 13:42	1
Sulfate	23		5.0	1.4	mg/L			04/14/17 07:41	1

Client Sample ID: AX07304 MW-15

Lab Sample ID: 400-135988-16

Date Collected: 03/28/17 15:09

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		2.0	0.60	mg/L			04/11/17 18:37	1
Fluoride	0.59		0.10	0.032	mg/L			04/13/17 13:52	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07304 MW-15

Lab Sample ID: 400-135988-16

Date Collected: 03/28/17 15:09

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	27		5.0	1.4	mg/L			04/14/17 07:43	1

Client Sample ID: AX07305 MW-12

Lab Sample ID: 400-135988-17

Date Collected: 03/29/17 09:51

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	0.60	mg/L			04/14/17 14:18	1
Fluoride	0.51		0.10	0.032	mg/L			04/13/17 14:59	1
Sulfate	3.8	J	5.0	1.4	mg/L			04/14/17 09:36	1

Client Sample ID: AX07306 MW-16D

Lab Sample ID: 400-135988-18

Date Collected: 03/29/17 11:51

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			04/14/17 14:18	1
Fluoride	0.080	J	0.10	0.032	mg/L			04/13/17 15:11	1
Sulfate	12		5.0	1.4	mg/L			04/14/17 09:36	1

Client Sample ID: AX07307 MW-13

Lab Sample ID: 400-135988-19

Date Collected: 03/29/17 13:30

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			04/14/17 14:18	1
Fluoride	0.14		0.10	0.032	mg/L			04/13/17 15:13	1
Sulfate	11		5.0	1.4	mg/L			04/14/17 09:36	1

Client Sample ID: AX07308 EB-1

Lab Sample ID: 400-135988-20

Date Collected: 03/29/17 14:00

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/15/17 08:36	1
Fluoride	<0.032		0.10	0.032	mg/L			04/13/17 15:15	1
Sulfate	<1.4		5.0	1.4	mg/L			04/19/17 09:50	1

Client Sample ID: AX07409 MW-2

Lab Sample ID: 400-135988-21

Date Collected: 03/30/17 11:35

Matrix: Water

Date Received: 04/04/17 16:21

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		2.0	0.60	mg/L			04/15/17 08:36	1
Fluoride	1.5		0.10	0.032	mg/L			04/13/17 15:22	1
Sulfate	31		5.0	1.4	mg/L			04/15/17 08:25	1

TestAmerica Pensacola

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07157 MW-6S

Lab Sample ID: 400-135988-1

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	348613	04/05/17 16:04	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		40	349656	04/13/17 16:02	BJB	TAL PEN

Client Sample ID: AX07158 MW-6S DUP

Lab Sample ID: 400-135988-2

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	348613	04/05/17 16:28	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		40	349656	04/13/17 16:02	BJB	TAL PEN

Client Sample ID: AX07159 MW-6D

Lab Sample ID: 400-135988-3

Date Collected: 03/27/17 13:02

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:16	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	349656	04/13/17 16:19	BJB	TAL PEN

Client Sample ID: AX07160 FB-1

Lab Sample ID: 400-135988-4

Date Collected: 03/27/17 13:35

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	348613	04/05/17 16:28	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:47	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349656	04/13/17 15:35	BJB	TAL PEN

Client Sample ID: AX07161 MW-7

Lab Sample ID: 400-135988-5

Date Collected: 03/28/17 09:30

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:22	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	349669	04/13/17 17:31	BJB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07162 MW-8

Lab Sample ID: 400-135988-6

Date Collected: 03/28/17 12:03

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:22	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349669	04/13/17 17:06	BJB	TAL PEN

Client Sample ID: AX07163 MW-9

Lab Sample ID: 400-135988-7

Date Collected: 03/28/17 13:38

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:50	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:51	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		30	349669	04/13/17 17:43	BJB	TAL PEN

Client Sample ID: AX07164 MW-17

Lab Sample ID: 400-135988-8

Date Collected: 03/27/17 11:30

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	348613	04/05/17 16:28	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349656	04/13/17 15:35	BJB	TAL PEN

Client Sample ID: AX07165 MW-21

Lab Sample ID: 400-135988-9

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:50	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:56	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349669	04/13/17 17:07	BJB	TAL PEN

Client Sample ID: AX07166 MW-21 DUP

Lab Sample ID: 400-135988-10

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:50	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 12:59	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349669	04/13/17 17:07	BJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07167 MW-19

Lab Sample ID: 400-135988-11

Date Collected: 03/28/17 10:14

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:50	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 13:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349703	04/14/17 07:41	BJB	TAL PEN

Client Sample ID: AX07168 MW-18

Lab Sample ID: 400-135988-12

Date Collected: 03/28/17 11:27

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:50	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349296	04/11/17 14:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		40	349703	04/14/17 08:11	BJB	TAL PEN

Client Sample ID: AX07169 MW-14

Lab Sample ID: 400-135988-13

Date Collected: 03/28/17 13:23

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349348	04/11/17 17:50	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 13:48	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349703	04/14/17 07:41	BJB	TAL PEN

Client Sample ID: AX07170 FB-2

Lab Sample ID: 400-135988-14

Date Collected: 03/28/17 11:45

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349351	04/11/17 18:37	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 13:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349703	04/14/17 07:41	BJB	TAL PEN

Client Sample ID: AX07303 MW-11

Lab Sample ID: 400-135988-15

Date Collected: 03/28/17 15:23

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349351	04/11/17 18:37	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 13:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349703	04/14/17 07:41	BJB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07304 MW-15

Lab Sample ID: 400-135988-16

Date Collected: 03/28/17 15:09

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349351	04/11/17 18:37	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 13:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349703	04/14/17 07:43	BJB	TAL PEN

Client Sample ID: AX07305 MW-12

Lab Sample ID: 400-135988-17

Date Collected: 03/29/17 09:51

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349793	04/14/17 14:18	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 14:59	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349757	04/14/17 09:36	BJB	TAL PEN

Client Sample ID: AX07306 MW-16D

Lab Sample ID: 400-135988-18

Date Collected: 03/29/17 11:51

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349793	04/14/17 14:18	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 15:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349757	04/14/17 09:36	BJB	TAL PEN

Client Sample ID: AX07307 MW-13

Lab Sample ID: 400-135988-19

Date Collected: 03/29/17 13:30

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349793	04/14/17 14:18	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 15:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349757	04/14/17 09:36	BJB	TAL PEN

Client Sample ID: AX07308 EB-1

Lab Sample ID: 400-135988-20

Date Collected: 03/29/17 14:00

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349876	04/15/17 08:36	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 15:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	350401	04/19/17 09:50	BJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07409 MW-2

Lab Sample ID: 400-135988-21

Date Collected: 03/30/17 11:35

Matrix: Water

Date Received: 04/04/17 16:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349876	04/15/17 08:36	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	349654	04/13/17 15:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349884	04/15/17 08:25	BJB	TAL PEN

Laboratory References:

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

General Chemistry

Analysis Batch: 348613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-1	AX07157 MW-6S	Total/NA	Water	SM 4500 CI- E	
400-135988-2	AX07158 MW-6S DUP	Total/NA	Water	SM 4500 CI- E	
400-135988-4	AX07160 FB-1	Total/NA	Water	SM 4500 CI- E	
400-135988-8	AX07164 MW-17	Total/NA	Water	SM 4500 CI- E	
MB 400-348613/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-348613/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-348613/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-135678-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 CI- E	
400-135678-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 349296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-1	AX07157 MW-6S	Total/NA	Water	SM 4500 F C	
400-135988-2	AX07158 MW-6S DUP	Total/NA	Water	SM 4500 F C	
400-135988-3	AX07159 MW-6D	Total/NA	Water	SM 4500 F C	
400-135988-4	AX07160 FB-1	Total/NA	Water	SM 4500 F C	
400-135988-5	AX07161 MW-7	Total/NA	Water	SM 4500 F C	
400-135988-6	AX07162 MW-8	Total/NA	Water	SM 4500 F C	
400-135988-7	AX07163 MW-9	Total/NA	Water	SM 4500 F C	
400-135988-8	AX07164 MW-17	Total/NA	Water	SM 4500 F C	
400-135988-9	AX07165 MW-21	Total/NA	Water	SM 4500 F C	
400-135988-10	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 F C	
400-135988-11	AX07167 MW-19	Total/NA	Water	SM 4500 F C	
400-135988-12	AX07168 MW-18	Total/NA	Water	SM 4500 F C	
MB 400-349296/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-349296/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135988-10 MS	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 F C	
400-135988-10 MSD	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 F C	
400-135988-5 DU	AX07161 MW-7	Total/NA	Water	SM 4500 F C	

Analysis Batch: 349348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-3	AX07159 MW-6D	Total/NA	Water	SM 4500 CI- E	
400-135988-5	AX07161 MW-7	Total/NA	Water	SM 4500 CI- E	
400-135988-6	AX07162 MW-8	Total/NA	Water	SM 4500 CI- E	
400-135988-7	AX07163 MW-9	Total/NA	Water	SM 4500 CI- E	
400-135988-9	AX07165 MW-21	Total/NA	Water	SM 4500 CI- E	
400-135988-10	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 CI- E	
400-135988-11	AX07167 MW-19	Total/NA	Water	SM 4500 CI- E	
400-135988-12	AX07168 MW-18	Total/NA	Water	SM 4500 CI- E	
400-135988-13	AX07169 MW-14	Total/NA	Water	SM 4500 CI- E	
MB 400-349348/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-349348/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-349348/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-135988-10 MS	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 CI- E	
400-135988-10 MSD	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 349351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-14	AX07170 FB-2	Total/NA	Water	SM 4500 CI- E	
400-135988-15	AX07303 MW-11	Total/NA	Water	SM 4500 CI- E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

General Chemistry (Continued)

Analysis Batch: 349351 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-16	AX07304 MW-15	Total/NA	Water	SM 4500 Cl- E	
MB 400-349351/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-349351/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-349351/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135988-15 MS	AX07303 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-135988-15 MSD	AX07303 MW-11	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 349654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-13	AX07169 MW-14	Total/NA	Water	SM 4500 F C	
400-135988-14	AX07170 FB-2	Total/NA	Water	SM 4500 F C	
400-135988-15	AX07303 MW-11	Total/NA	Water	SM 4500 F C	
400-135988-16	AX07304 MW-15	Total/NA	Water	SM 4500 F C	
400-135988-17	AX07305 MW-12	Total/NA	Water	SM 4500 F C	
400-135988-18	AX07306 MW-16D	Total/NA	Water	SM 4500 F C	
400-135988-19	AX07307 MW-13	Total/NA	Water	SM 4500 F C	
400-135988-20	AX07308 EB-1	Total/NA	Water	SM 4500 F C	
400-135988-21	AX07409 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-349654/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-349654/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135988-15 MS	AX07303 MW-11	Total/NA	Water	SM 4500 F C	
400-135988-15 MSD	AX07303 MW-11	Total/NA	Water	SM 4500 F C	
400-135988-21 MS	AX07409 MW-2	Total/NA	Water	SM 4500 F C	
400-135988-21 MSD	AX07409 MW-2	Total/NA	Water	SM 4500 F C	
400-135993-A-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 349656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-1	AX07157 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-135988-2	AX07158 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-135988-3	AX07159 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-135988-4	AX07160 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-135988-8	AX07164 MW-17	Total/NA	Water	SM 4500 SO4 E	
MB 400-349656/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349656/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349656/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135678-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135678-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 349669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-5	AX07161 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-135988-6	AX07162 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-135988-7	AX07163 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-135988-9	AX07165 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-135988-10	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 SO4 E	
MB 400-349669/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349669/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349669/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135988-10 MS	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 SO4 E	
400-135988-10 MSD	AX07166 MW-21 DUP	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

Analysis Batch: 349703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-11	AX07167 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-135988-12	AX07168 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-135988-13	AX07169 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-135988-14	AX07170 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-135988-15	AX07303 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-135988-16	AX07304 MW-15	Total/NA	Water	SM 4500 SO4 E	
MB 400-349703/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349703/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349703/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135988-15 MS	AX07303 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-135988-15 MSD	AX07303 MW-11	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 349757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-17	AX07305 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-135988-18	AX07306 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-135988-19	AX07307 MW-13	Total/NA	Water	SM 4500 SO4 E	
MB 400-349757/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349757/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349757/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135838-A-7 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-135838-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 349793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-17	AX07305 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-135988-18	AX07306 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-135988-19	AX07307 MW-13	Total/NA	Water	SM 4500 Cl- E	
MB 400-349793/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-349793/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-349793/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135988-17 MS	AX07305 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-135988-17 MSD	AX07305 MW-12	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 349876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-20	AX07308 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-135988-21	AX07409 MW-2	Total/NA	Water	SM 4500 Cl- E	
MB 400-349876/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-349876/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-349876/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135988-21 MS	AX07409 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-135988-21 MSD	AX07409 MW-2	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 349884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-21	AX07409 MW-2	Total/NA	Water	SM 4500 SO4 E	
MB 400-349884/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349884/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349884/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135988-21 MS	AX07409 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-135988-21 MSD	AX07409 MW-2	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
SDG: Gorgas Ash Pond (6)

General Chemistry (Continued)

Analysis Batch: 350401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135988-20	AX07308 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-350401/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-350401/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-350401/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-136381-A-20 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-136381-A-20 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-348613/6
Matrix: Water
Analysis Batch: 348613

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/05/17 15:28	1

Lab Sample ID: LCS 400-348613/7
Matrix: Water
Analysis Batch: 348613

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 400-348613/3
Matrix: Water
Analysis Batch: 348613

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	1.52	J	mg/L		76	50 - 150

Lab Sample ID: 400-135678-A-14 MS
Matrix: Water
Analysis Batch: 348613

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.5	J	10.0	12.5		mg/L		110	73 - 120

Lab Sample ID: 400-135678-A-14 MSD
Matrix: Water
Analysis Batch: 348613

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	Limit
Chloride	1.5	J	10.0	12.5		mg/L		109	73 - 120	0	8

Lab Sample ID: MB 400-349348/6
Matrix: Water
Analysis Batch: 349348

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/11/17 17:16	1

Lab Sample ID: LCS 400-349348/7
Matrix: Water
Analysis Batch: 349348

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	32.2		mg/L		107	90 - 110

Lab Sample ID: MRL 400-349348/3
Matrix: Water
Analysis Batch: 349348

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	1.92	J	mg/L		96	50 - 150

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Lab Sample ID: 400-135988-10 MS
Matrix: Water
Analysis Batch: 349348

Client Sample ID: AX07166 MW-21 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	28		10.0	36.7		mg/L		91	73 - 120

Lab Sample ID: 400-135988-10 MSD
Matrix: Water
Analysis Batch: 349348

Client Sample ID: AX07166 MW-21 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	28		10.0	36.5		mg/L		89	73 - 120	1	8

Lab Sample ID: MB 400-349351/6
Matrix: Water
Analysis Batch: 349351

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/11/17 18:15	1

Lab Sample ID: LCS 400-349351/7
Matrix: Water
Analysis Batch: 349351

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 400-349351/3
Matrix: Water
Analysis Batch: 349351

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	1.80	J	mg/L		90	50 - 150

Lab Sample ID: 400-135988-15 MS
Matrix: Water
Analysis Batch: 349351

Client Sample ID: AX07303 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.4	F1	10.0	16.9	F1	mg/L		125	73 - 120

Lab Sample ID: 400-135988-15 MSD
Matrix: Water
Analysis Batch: 349351

Client Sample ID: AX07303 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	4.4	F1	10.0	16.9	F1	mg/L		125	73 - 120	0	8

Lab Sample ID: MB 400-349793/6
Matrix: Water
Analysis Batch: 349793

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/14/17 14:18	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

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

Lab Sample ID: LCS 400-349793/7
Matrix: Water
Analysis Batch: 349793

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.8		mg/L		109	90 - 110

Lab Sample ID: MRL 400-349793/3
Matrix: Water
Analysis Batch: 349793

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.37	J	mg/L		69	50 - 150

Lab Sample ID: 400-135988-17 MS
Matrix: Water
Analysis Batch: 349793

Client Sample ID: AX07305 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10		10.0	21.9		mg/L		118	73 - 120

Lab Sample ID: 400-135988-17 MSD
Matrix: Water
Analysis Batch: 349793

Client Sample ID: AX07305 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	10		10.0	21.6		mg/L		115	73 - 120	2	8

Lab Sample ID: MB 400-349876/6
Matrix: Water
Analysis Batch: 349876

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/15/17 07:09	1

Lab Sample ID: LCS 400-349876/7
Matrix: Water
Analysis Batch: 349876

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: MRL 400-349876/3
Matrix: Water
Analysis Batch: 349876

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	1.84	J	mg/L		92	50 - 150

Lab Sample ID: 400-135988-21 MS
Matrix: Water
Analysis Batch: 349876

Client Sample ID: AX07409 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	11		10.0	21.8		mg/L		113	73 - 120

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Lab Sample ID: 400-135988-21 MSD
Matrix: Water
Analysis Batch: 349876

Client Sample ID: AX07409 MW-2
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	22.5		mg/L		120	73 - 120	3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-349296/3
Matrix: Water
Analysis Batch: 349296

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			04/11/17 12:40	1

Lab Sample ID: LCS 400-349296/4
Matrix: Water
Analysis Batch: 349296

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: 400-135988-10 MS
Matrix: Water
Analysis Batch: 349296

Client Sample ID: AX07166 MW-21 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.27		1.00	1.26		mg/L		99	75 - 125

Lab Sample ID: 400-135988-10 MSD
Matrix: Water
Analysis Batch: 349296

Client Sample ID: AX07166 MW-21 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.27		1.00	1.31		mg/L		104	75 - 125	4	4

Lab Sample ID: 400-135988-5 DU
Matrix: Water
Analysis Batch: 349296

Client Sample ID: AX07161 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.070	J	0.0800	J F5	mg/L		13	4

Lab Sample ID: MB 400-349654/3
Matrix: Water
Analysis Batch: 349654

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			04/13/17 13:34	1

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-349654/4
Matrix: Water
Analysis Batch: 349654

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: 400-135988-15 MS
Matrix: Water
Analysis Batch: 349654

Client Sample ID: AX07303 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.12		1.00	1.14		mg/L		102	75 - 125

Lab Sample ID: 400-135988-15 MSD
Matrix: Water
Analysis Batch: 349654

Client Sample ID: AX07303 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.12		1.00	1.14		mg/L		102	75 - 125	0	4

Lab Sample ID: 400-135988-21 MS
Matrix: Water
Analysis Batch: 349654

Client Sample ID: AX07409 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.5		1.00	2.48		mg/L		101	75 - 125

Lab Sample ID: 400-135988-21 MSD
Matrix: Water
Analysis Batch: 349654

Client Sample ID: AX07409 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.5		1.00	2.53		mg/L		106	75 - 125	2	4

Lab Sample ID: 400-135993-A-1 DU
Matrix: Water
Analysis Batch: 349654

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.080	J	0.0800	J	mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-349656/6
Matrix: Water
Analysis Batch: 349656

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/13/17 14:44	1

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

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

Lab Sample ID: LCS 400-349656/7
Matrix: Water
Analysis Batch: 349656

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 400-349656/3
Matrix: Water
Analysis Batch: 349656

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: 400-135678-A-14 MS
Matrix: Water
Analysis Batch: 349656

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	2900	F1	850	2760	F1	mg/L		-16	77 - 128

Lab Sample ID: 400-135678-A-14 MSD
Matrix: Water
Analysis Batch: 349656

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	2900	F1	850	2900	F1	mg/L		-0.5	77 - 128	5	5

Lab Sample ID: MB 400-349669/6
Matrix: Water
Analysis Batch: 349669

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/13/17 16:44	1

Lab Sample ID: LCS 400-349669/7
Matrix: Water
Analysis Batch: 349669

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 400-349669/3
Matrix: Water
Analysis Batch: 349669

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	5.11		mg/L		102	50 - 150

Lab Sample ID: 400-135988-10 MS
Matrix: Water
Analysis Batch: 349669

Client Sample ID: AX07166 MW-21 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	25	F1	10.0	38.3	F1	mg/L		131	77 - 128

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Lab Sample ID: 400-135988-10 MSD
Matrix: Water
Analysis Batch: 349669

Client Sample ID: AX07166 MW-21 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	25	F1	10.0	38.3	F1	mg/L		130	77 - 128	0	5

Lab Sample ID: MB 400-349703/6
Matrix: Water
Analysis Batch: 349703

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/14/17 07:40	1

Lab Sample ID: LCS 400-349703/7
Matrix: Water
Analysis Batch: 349703

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		104	90 - 110

Lab Sample ID: MRL 400-349703/3
Matrix: Water
Analysis Batch: 349703

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	4.11	J	mg/L		82	50 - 150

Lab Sample ID: 400-135988-15 MS
Matrix: Water
Analysis Batch: 349703

Client Sample ID: AX07303 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	23		10.0	35.8		mg/L		125	77 - 128

Lab Sample ID: 400-135988-15 MSD
Matrix: Water
Analysis Batch: 349703

Client Sample ID: AX07303 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	23		10.0	35.9		mg/L		126	77 - 128	0	5

Lab Sample ID: MB 400-349757/6
Matrix: Water
Analysis Batch: 349757

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/14/17 09:23	1

Lab Sample ID: LCS 400-349757/7
Matrix: Water
Analysis Batch: 349757

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

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

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

Lab Sample ID: MRL 400-349757/3
Matrix: Water
Analysis Batch: 349757

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.16		mg/L		103	50 - 150

Lab Sample ID: 400-135838-A-7 MS
Matrix: Water
Analysis Batch: 349757

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	13		10.0	24.2		mg/L		116	77 - 128

Lab Sample ID: 400-135838-A-7 MSD
Matrix: Water
Analysis Batch: 349757

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	13		10.0	23.9		mg/L		113	77 - 128	1	5

Lab Sample ID: MB 400-349884/6
Matrix: Water
Analysis Batch: 349884

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/15/17 07:42	1

Lab Sample ID: LCS 400-349884/7
Matrix: Water
Analysis Batch: 349884

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 400-349884/3
Matrix: Water
Analysis Batch: 349884

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	4.71	J	mg/L		94	50 - 150

Lab Sample ID: 400-135988-21 MS
Matrix: Water
Analysis Batch: 349884

Client Sample ID: AX07409 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	31		10.0	42.6		mg/L		117	77 - 128

Lab Sample ID: 400-135988-21 MSD
Matrix: Water
Analysis Batch: 349884

Client Sample ID: AX07409 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	31		10.0	43.8		mg/L		128	77 - 128	3	5

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

Lab Sample ID: MB 400-350401/6
Matrix: Water
Analysis Batch: 350401

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/19/17 09:18	1

Lab Sample ID: LCS 400-350401/7
Matrix: Water
Analysis Batch: 350401

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

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

Lab Sample ID: MRL 400-350401/3
Matrix: Water
Analysis Batch: 350401

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	4.90	J	mg/L		98	50 - 150

Lab Sample ID: 400-136381-A-20 MS
Matrix: Water
Analysis Batch: 350401

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	71	F1	100	78.3	F1	mg/L		8	77 - 128

Lab Sample ID: 400-136381-A-20 MSD
Matrix: Water
Analysis Batch: 350401

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	71	F1	100	76.0	F1	mg/L		5	77 - 128	3	5

Chain of Custody Record

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

Client Information
 Client Contact: Sarah Copeland
 Company: Alabama Power General Test Laboratory
 Address: 744 County Rd 87 GSC#8
 City: Calera
 State, Zip: AL 35040
 Phone: 205-664-6121 (Tel)
 Email: sgcopela@southernco.com
 Project Name: CCR
 Site: Gorgas Ash Pond (6)

Sampler: Brett Roitschuld/ Jason Rouss
Lab Pk.: Whitmore, Cheyenne R.
E-Mail: cheyenne.whitmore@testamericainc.com

Carrier Tracking No. (e):
Page: Page 1 of 2
Job #: 400-135988

Analysis Requested

Due Date Requested:
 TA Requested (days): Routine
 PO #:
 WQ #:
 Project #: 40007143
 SS W#:
 Matrix (Water, Soil, Sediment, Air, etc.):

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, Air, etc.)	SM 4500 F.C.	SM 4500 CLE	SM 4500 BOD E	Special Instructions/Notes:
AX07157	3/27/17	1200	G	Water	X	X	X	MW-6S
AX07158	3/27/17	1200	G	Water	X	X	X	MW-6S Dup (Sample Duplicate)
AX07159	3/27/17	1302	G	Water	X	X	X	MW-6D
AX07160	3/27/17	1335	G	Water	X	X	X	FB-1 (Field Blank)
AX07161	3/28/17	0930	G	Water	X	X	X	MW-7
AX07162	3/28/17	1203	G	Water	X	X	X	MW-8
AX07163	3/28/17	1338	G	Water	X	X	X	MW-9
AX07164	3/27/17	1130	G	Water	X	X	X	MW-17
AX07165	3/28/17	1055	G	Water	X	X	X	MW-21
AX07166	3/28/17	1055	G	Water	Y	X	X	MW-21 Dup (Sample Duplicate)

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: Sarah Copeland Date/Time: 04/03/2017: 1145 Company: APC

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No No
 Custody Seal No.: _____

Special Instructions/QC Requirements: _____

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

Relinquished by: _____ Date/Time: 4/4/2017 16:21 Company: TK
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 14.2°C 12-7



TestAmerica Pensacola
 3355 McLemore Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2571

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sampler: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Sarah Copeland		E-Mail: cheyenne.whitmire@testamericainc.com			
Company: Alabama Power General Test Laboratory		Lab Pkt: Whitmire, Cheyenne R		COC No: 400-56525-24537-1	
Address: 744 County Rd 87 GSC #8		City: Calera		Page: Page 2 of 2	
State, Zip: AL, 35040		PO #:		Job #: 400-135988	
Phone: 205-664-6121 (Tel)		W/C #:		Preservation Codes:	
Email: sgcopela@souththermo.com		Project #: 40007143		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydants U - Acetone V - MCAA W - Ph 4.5 X - EDTA Y - EDA Z - other (specify)	
CCR		Site: Gorgas Ash Pond (6)		Other:	
Analysis Requested		Dus Date Requested:		Special Instructions/Notes:	
TAI Requested (days):		Routine			
Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Matrix (Water, Soil, Gas, etc.)		Matrix (Water, Soil, Gas, etc.)		Matrix (Water, Soil, Gas, etc.)	
AX07167	3/28/17	1014	G	Water	SM 4500 F.O.
AX07168	3/28/17	1127	G	Water	SM 4500 C.F.
AX07169	3/28/17	1323	G	Water	SM 4500 S.O.A.B.
AX07170	3/28/17	1145	G	Water	
AX07303	3/28/17	1523	G	Water	
AX07304	3/28/17	1509	G	Water	
AX07305	3/29/17	0951	G	Water	
AX07306	3/29/17	1151	G	Water	
AX07307	3/29/17	1330	G	Water	
AX07308	3/29/17	1400	G	Water	
AX07409	3/30/17	1135	G	Water	
<input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 04/03/2017; 1145 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____					
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: 14.2°C 18-7					



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-135988-1
SDG Number: Gorgas Ash Pond (6)

Login Number: 135988

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	14.2°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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135988-1
 SDG: Gorgas Ash Pond (6)

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	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

* 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: 400-135992-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (6)

Client Project/Site: CCR Plant Gorgas

For:

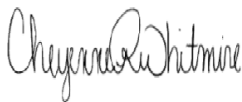
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

5/16/2017 4:48:24 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	27
Chronicle	28
QC Association	34
QC Sample Results	36
Chain of Custody	40
Receipt Checklists	42
Certification Summary	43

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

Job ID: 400-135992-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-135992-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-304204. The following samples were reduced due to limited volume: AX07143 MW-6D (400-135992-1), AX07143 MW-6D (400-135992-1[DU]), AX07144 MW-6S (400-135992-2), AX07145 MW-6S DUP (400-135992-3), AX07146 FB-1 (400-135992-4), AX07147 MW-7 (400-135992-5), AX07148 MW-8 (400-135992-6), AX07149 MW-9 (400-135992-7), AX07150 MW-17 (400-135992-8), AX07151 MW-21 (400-135992-9), AX07152 MW-21 DUP (400-135992-10) and AX07153 MW-19 (400-135992-11).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-304121. The following samples were reduced due to limited volume: AX07154 MW-18 (400-135992-12), AX07154 MW-18 (400-135992-12[DU]), AX07155 MW-14 (400-135992-13), AX07156 FB-2 (400-135992-14), AX07309 MW-11 (400-135992-15), AX07310 MW-15 (400-135992-16), AX07311 MW-12 (400-135992-17), AX07312 MW-16D (400-135992-18), AX07313 MW-13 (400-135992-19), AX07314 EB-1 (400-135992-20) and AX07410 MW-2 (400-135992-21).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-304145. The following samples were reduced due to limited volume: AX07143 MW-6D (400-135992-1), AX07143 MW-6D (400-135992-1[DU]), AX07144 MW-6S (400-135992-2), AX07145 MW-6S DUP (400-135992-3), AX07146 FB-1 (400-135992-4), AX07147 MW-7 (400-135992-5), AX07148 MW-8 (400-135992-6), AX07149 MW-9 (400-135992-7), AX07150 MW-17 (400-135992-8), AX07151 MW-21 (400-135992-9), AX07152 MW-21 DUP (400-135992-10) and AX07153 MW-19 (400-135992-11).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-304149. The following samples were reduced due to limited volume: AX07154 MW-18 (400-135992-12), AX07154 MW-18 (400-135992-12[DU]), AX07155 MW-14 (400-135992-13), AX07156 FB-2 (400-135992-14), AX07309 MW-11 (400-135992-15), AX07310 MW-15 (400-135992-16), AX07311 MW-12 (400-135992-17), AX07312 MW-16D (400-135992-18), AX07313 MW-13 (400-135992-19), AX07314 EB-1 (400-135992-20) and AX07410 MW-2 (400-135992-21).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135992-1	AX07143 MW-6D	Water	03/27/17 13:02	04/04/17 08:51
400-135992-2	AX07144 MW-6S	Water	03/27/17 12:00	04/04/17 08:51
400-135992-3	AX07145 MW-6S DUP	Water	03/27/17 12:00	04/04/17 08:51
400-135992-4	AX07146 FB-1	Water	03/27/17 13:35	04/04/17 08:51
400-135992-5	AX07147 MW-7	Water	03/28/17 09:30	04/04/17 08:51
400-135992-6	AX07148 MW-8	Water	03/28/17 12:03	04/04/17 08:51
400-135992-7	AX07149 MW-9	Water	03/28/17 13:38	04/04/17 08:51
400-135992-8	AX07150 MW-17	Water	03/27/17 11:30	04/04/17 08:51
400-135992-9	AX07151 MW-21	Water	03/28/17 10:55	04/04/17 08:51
400-135992-10	AX07152 MW-21 DUP	Water	03/28/17 10:55	04/04/17 08:51
400-135992-11	AX07153 MW-19	Water	03/28/17 10:14	04/04/17 08:51
400-135992-12	AX07154 MW-18	Water	03/28/17 11:27	04/04/17 08:51
400-135992-13	AX07155 MW-14	Water	03/28/17 13:23	04/04/17 08:51
400-135992-14	AX07156 FB-2	Water	03/28/17 11:45	04/04/17 08:51
400-135992-15	AX07309 MW-11	Water	03/29/17 15:23	04/04/17 08:51
400-135992-16	AX07310 MW-15	Water	03/28/17 15:09	04/04/17 08:51
400-135992-17	AX07311 MW-12	Water	03/29/17 09:51	04/04/17 08:51
400-135992-18	AX07312 MW-16D	Water	03/29/17 11:51	04/04/17 08:51
400-135992-19	AX07313 MW-13	Water	03/29/17 13:30	04/04/17 08:51
400-135992-20	AX07314 EB-1	Water	03/29/17 14:00	04/04/17 08:51
400-135992-21	AX07410 MW-2	Water	03/30/17 11:35	04/04/17 08:51

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07143 MW-6D

Lab Sample ID: 400-135992-1

Date Collected: 03/27/17 13:02

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.180		0.107	0.108	1.00	0.139	pCi/L	04/18/17 14:39	05/11/17 05:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					04/18/17 14:39	05/11/17 05:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.154	U	0.280	0.281	1.00	0.475	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	86.4		40 - 110					04/19/17 09:21	05/05/17 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	0.334	U	0.300	0.301	5.00	0.475	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07144 MW-6S

Lab Sample ID: 400-135992-2

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.313		0.134	0.136	1.00	0.147	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0124	U	0.262	0.262	1.00	0.466	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	86.4		40 - 110					04/19/17 09:21	05/05/17 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	0.325	U	0.294	0.295	5.00	0.466	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07145 MW-6S DUP

Lab Sample ID: 400-135992-3

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.263		0.124	0.127	1.00	0.143	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.265	U	0.265	0.266	1.00	0.430	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	86.4		40 - 110					04/19/17 09:21	05/05/17 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	0.528		0.292	0.294	5.00	0.430	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07146 FB-1

Lab Sample ID: 400-135992-4

Date Collected: 03/27/17 13:35

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0195	U	0.0614	0.0615	1.00	0.142	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.317	U	0.249	0.250	1.00	0.391	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	86.7		40 - 110					04/19/17 09:21	05/05/17 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	0.297	U	0.256	0.258	5.00	0.391	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07147 MW-7

Lab Sample ID: 400-135992-5

Date Collected: 03/28/17 09:30

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141		0.100	0.101	1.00	0.137	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.134	U	0.259	0.260	1.00	0.493	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	83.0		40 - 110					04/19/17 09:21	05/05/17 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	0.00697	U	0.278	0.279	5.00	0.493	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07148 MW-8

Lab Sample ID: 400-135992-6

Date Collected: 03/28/17 12:03

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00101	U	0.0702	0.0702	1.00	0.145	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.110	U	0.307	0.307	1.00	0.559	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	83.7		40 - 110					04/19/17 09:21	05/05/17 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	-0.109	U	0.315	0.315	5.00	0.559	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07149 MW-9

Lab Sample ID: 400-135992-7

Date Collected: 03/28/17 13:38

Matrix: Water

Date Received: 04/04/17 08:51

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		0.101	0.102	1.00	0.140	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0136	U	0.256	0.256	1.00	0.465	pCi/L	04/19/17 09:21	05/05/17 14:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/19/17 09:21	05/05/17 14:09	1
Y Carrier	81.5		40 - 110					04/19/17 09:21	05/05/17 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	0.129	U	0.275	0.276	5.00	0.465	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07150 MW-17

Lab Sample ID: 400-135992-8

Date Collected: 03/27/17 11:30

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0356	U	0.0751	0.0752	1.00	0.137	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0380	U	0.250	0.250	1.00	0.445	pCi/L	04/19/17 09:21	05/05/17 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					04/19/17 09:21	05/05/17 14:10	1
Y Carrier	84.1		40 - 110					04/19/17 09:21	05/05/17 14:10	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	0.0736	U	0.261	0.261	5.00	0.445	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07151 MW-21

Lab Sample ID: 400-135992-9

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.139		0.0982	0.0990	1.00	0.134	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.161	U	0.276	0.276	1.00	0.468	pCi/L	04/19/17 09:21	05/05/17 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					04/19/17 09:21	05/05/17 14:10	1
Y Carrier	83.4		40 - 110					04/19/17 09:21	05/05/17 14:10	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	0.300	U	0.293	0.294	5.00	0.468	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07152 MW-21 DUP

Lab Sample ID: 400-135992-10

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.197		0.111	0.112	1.00	0.135	pCi/L	04/18/17 14:39	05/11/17 05:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					04/18/17 14:39	05/11/17 05:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.102	U	0.288	0.288	1.00	0.500	pCi/L	04/19/17 09:21	05/05/17 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					04/19/17 09:21	05/05/17 14:10	1
Y Carrier	81.5		40 - 110					04/19/17 09:21	05/05/17 14:10	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	0.299	U	0.309	0.309	5.00	0.500	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07153 MW-19

Lab Sample ID: 400-135992-11

Date Collected: 03/28/17 10:14

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.161		0.0944	0.0955	1.00	0.111	pCi/L	04/18/17 14:39	05/11/17 05:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/18/17 14:39	05/11/17 05:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0902	U	0.210	0.210	1.00	0.405	pCi/L	04/19/17 09:21	05/05/17 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/19/17 09:21	05/05/17 14:10	1
Y Carrier	84.1		40 - 110					04/19/17 09:21	05/05/17 14:10	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	0.0705	U	0.230	0.231	5.00	0.405	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07154 MW-18

Lab Sample ID: 400-135992-12

Date Collected: 03/28/17 11:27

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0869	U	0.107	0.107	1.00	0.176	pCi/L	04/18/17 14:48	05/11/17 05:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/18/17 14:48	05/11/17 05:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0104	U	0.274	0.274	1.00	0.488	pCi/L	04/19/17 11:39	05/05/17 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/19/17 11:39	05/05/17 09:45	1
Y Carrier	89.0		40 - 110					04/19/17 11:39	05/05/17 09:45	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	0.0973	U	0.294	0.294	5.00	0.488	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07155 MW-14

Lab Sample ID: 400-135992-13

Date Collected: 03/28/17 13:23

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0734	U	0.0829	0.0831	1.00	0.132	pCi/L	04/18/17 14:48	05/11/17 05:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/18/17 14:48	05/11/17 05:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.545		0.351	0.355	1.00	0.544	pCi/L	04/19/17 11:39	05/05/17 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					04/19/17 11:39	05/05/17 09:45	1
Y Carrier	79.6		40 - 110					04/19/17 11:39	05/05/17 09:45	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	0.618		0.361	0.365	5.00	0.544	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07156 FB-2

Lab Sample ID: 400-135992-14

Date Collected: 03/28/17 11:45

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0327	U	0.0638	0.0638	1.00	0.156	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0449	U	0.284	0.284	1.00	0.514	pCi/L	04/19/17 11:39	05/05/17 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					04/19/17 11:39	05/05/17 09:45	1
Y Carrier	90.5		40 - 110					04/19/17 11:39	05/05/17 09:45	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	-0.0776	U	0.291	0.291	5.00	0.514	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07309 MW-11

Lab Sample ID: 400-135992-15

Date Collected: 03/29/17 15:23

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.184		0.108	0.109	1.00	0.133	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.220	U	0.340	0.341	1.00	0.572	pCi/L	04/19/17 11:39	05/05/17 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/19/17 11:39	05/05/17 09:45	1
Y Carrier	75.5		40 - 110					04/19/17 11:39	05/05/17 09:45	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	0.403	U	0.357	0.358	5.00	0.572	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07310 MW-15

Lab Sample ID: 400-135992-16

Date Collected: 03/28/17 15:09

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0846	U	0.0919	0.0922	1.00	0.146	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.126	U	0.281	0.282	1.00	0.525	pCi/L	04/19/17 11:39	05/05/17 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					04/19/17 11:39	05/05/17 09:46	1
Y Carrier	82.6		40 - 110					04/19/17 11:39	05/05/17 09:46	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	-0.0411	U	0.296	0.296	5.00	0.525	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07311 MW-12

Lab Sample ID: 400-135992-17

Date Collected: 03/29/17 09:51

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0797	U	0.0953	0.0956	1.00	0.156	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.114	U	0.277	0.277	1.00	0.479	pCi/L	04/19/17 11:39	05/05/17 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					04/19/17 11:39	05/05/17 09:46	1
Y Carrier	85.6		40 - 110					04/19/17 11:39	05/05/17 09:46	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	0.194	U	0.293	0.293	5.00	0.479	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07312 MW-16D

Lab Sample ID: 400-135992-18

Date Collected: 03/29/17 11:51

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0687	U	0.0883	0.0886	1.00	0.147	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.292	U	0.276	0.278	1.00	0.445	pCi/L	04/19/17 11:39	05/05/17 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					04/19/17 11:39	05/05/17 09:46	1
Y Carrier	84.1		40 - 110					04/19/17 11:39	05/05/17 09:46	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	0.360	U	0.290	0.291	5.00	0.445	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07313 MW-13

Lab Sample ID: 400-135992-19

Date Collected: 03/29/17 13:30

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.0983	0.0988	1.00	0.150	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.148	U	0.283	0.284	1.00	0.483	pCi/L	04/19/17 11:39	05/05/17 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					04/19/17 11:39	05/05/17 09:46	1
Y Carrier	87.9		40 - 110					04/19/17 11:39	05/05/17 09:46	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	0.251	U	0.300	0.300	5.00	0.483	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07314 EB-1

Lab Sample ID: 400-135992-20

Date Collected: 03/29/17 14:00

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0436	U	0.0591	0.0592	1.00	0.155	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.306	U	0.303	0.305	1.00	0.583	pCi/L	04/19/17 11:39	05/05/17 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					04/19/17 11:39	05/05/17 09:46	1
Y Carrier	84.5		40 - 110					04/19/17 11:39	05/05/17 09:46	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	-0.350	U	0.309	0.310	5.00	0.583	pCi/L		05/12/17 14:06	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07410 MW-2

Lab Sample ID: 400-135992-21

Date Collected: 03/30/17 11:35

Matrix: Water

Date Received: 04/04/17 08:51

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.122	U	0.0953	0.0960	1.00	0.131	pCi/L	04/18/17 14:48	05/11/17 05:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					04/18/17 14:48	05/11/17 05:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.000	U	0.271	0.271	1.00	0.488	pCi/L	04/19/17 11:39	05/05/17 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		40 - 110					04/19/17 11:39	05/05/17 09:46	1
Y Carrier	87.5		40 - 110					04/19/17 11:39	05/05/17 09:46	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	0.122	U	0.287	0.287	5.00	0.488	pCi/L		05/12/17 14:06	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07143 MW-6D

Lab Sample ID: 400-135992-1

Date Collected: 03/27/17 13:02

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:56	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07144 MW-6S

Lab Sample ID: 400-135992-2

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07145 MW-6S DUP

Lab Sample ID: 400-135992-3

Date Collected: 03/27/17 12:00

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07146 FB-1

Lab Sample ID: 400-135992-4

Date Collected: 03/27/17 13:35

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07147 MW-7

Lab Sample ID: 400-135992-5

Date Collected: 03/28/17 09:30

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07148 MW-8

Lab Sample ID: 400-135992-6

Date Collected: 03/28/17 12:03

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07149 MW-9

Lab Sample ID: 400-135992-7

Date Collected: 03/28/17 13:38

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:09	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07150 MW-17

Lab Sample ID: 400-135992-8

Date Collected: 03/27/17 11:30

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07151 MW-21

Lab Sample ID: 400-135992-9

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07152 MW-21 DUP

Lab Sample ID: 400-135992-10

Date Collected: 03/28/17 10:55

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:57	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07153 MW-19

Lab Sample ID: 400-135992-11

Date Collected: 03/28/17 10:14

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304145	04/18/17 14:39	LDE	TAL SL
Total/NA	Analysis	9315		1	308226	05/11/17 05:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304204	04/19/17 09:21	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 14:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07154 MW-18

Lab Sample ID: 400-135992-12

Date Collected: 03/28/17 11:27

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:49	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:45	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07155 MW-14

Lab Sample ID: 400-135992-13

Date Collected: 03/28/17 13:23

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:49	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:45	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07156 FB-2

Lab Sample ID: 400-135992-14

Date Collected: 03/28/17 11:45

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:45	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07309 MW-11

Lab Sample ID: 400-135992-15

Date Collected: 03/29/17 15:23

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:45	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07310 MW-15

Lab Sample ID: 400-135992-16

Date Collected: 03/28/17 15:09

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07311 MW-12

Lab Sample ID: 400-135992-17

Date Collected: 03/29/17 09:51

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07312 MW-16D

Lab Sample ID: 400-135992-18

Date Collected: 03/29/17 11:51

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07313 MW-13

Lab Sample ID: 400-135992-19

Date Collected: 03/29/17 13:30

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Client Sample ID: AX07314 EB-1

Lab Sample ID: 400-135992-20

Date Collected: 03/29/17 14:00

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

Client Sample ID: AX07410 MW-2

Lab Sample ID: 400-135992-21

Date Collected: 03/30/17 11:35

Matrix: Water

Date Received: 04/04/17 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			304149	04/18/17 14:48	LDE	TAL SL
Total/NA	Analysis	9315		1	308225	05/11/17 05:50	ALD	TAL SL
Total/NA	Prep	PrecSep_0			304232	04/19/17 11:39	LDE	TAL SL
Total/NA	Analysis	9320		1	307426	05/05/17 09:46	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	308443	05/12/17 14:06	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Rad

Prep Batch: 304145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135992-1	AX07143 MW-6D	Total/NA	Water	PrecSep-21	
400-135992-2	AX07144 MW-6S	Total/NA	Water	PrecSep-21	
400-135992-3	AX07145 MW-6S DUP	Total/NA	Water	PrecSep-21	
400-135992-4	AX07146 FB-1	Total/NA	Water	PrecSep-21	
400-135992-5	AX07147 MW-7	Total/NA	Water	PrecSep-21	
400-135992-6	AX07148 MW-8	Total/NA	Water	PrecSep-21	
400-135992-7	AX07149 MW-9	Total/NA	Water	PrecSep-21	
400-135992-8	AX07150 MW-17	Total/NA	Water	PrecSep-21	
400-135992-9	AX07151 MW-21	Total/NA	Water	PrecSep-21	
400-135992-10	AX07152 MW-21 DUP	Total/NA	Water	PrecSep-21	
400-135992-11	AX07153 MW-19	Total/NA	Water	PrecSep-21	
MB 160-304145/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304145/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-135992-1 DU	AX07143 MW-6D	Total/NA	Water	PrecSep-21	

Prep Batch: 304149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135992-12	AX07154 MW-18	Total/NA	Water	PrecSep-21	
400-135992-13	AX07155 MW-14	Total/NA	Water	PrecSep-21	
400-135992-14	AX07156 FB-2	Total/NA	Water	PrecSep-21	
400-135992-15	AX07309 MW-11	Total/NA	Water	PrecSep-21	
400-135992-16	AX07310 MW-15	Total/NA	Water	PrecSep-21	
400-135992-17	AX07311 MW-12	Total/NA	Water	PrecSep-21	
400-135992-18	AX07312 MW-16D	Total/NA	Water	PrecSep-21	
400-135992-19	AX07313 MW-13	Total/NA	Water	PrecSep-21	
400-135992-20	AX07314 EB-1	Total/NA	Water	PrecSep-21	
400-135992-21	AX07410 MW-2	Total/NA	Water	PrecSep-21	
MB 160-304149/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-304149/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-135992-12 DU	AX07154 MW-18	Total/NA	Water	PrecSep-21	

Prep Batch: 304204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135992-1	AX07143 MW-6D	Total/NA	Water	PrecSep_0	
400-135992-2	AX07144 MW-6S	Total/NA	Water	PrecSep_0	
400-135992-3	AX07145 MW-6S DUP	Total/NA	Water	PrecSep_0	
400-135992-4	AX07146 FB-1	Total/NA	Water	PrecSep_0	
400-135992-5	AX07147 MW-7	Total/NA	Water	PrecSep_0	
400-135992-6	AX07148 MW-8	Total/NA	Water	PrecSep_0	
400-135992-7	AX07149 MW-9	Total/NA	Water	PrecSep_0	
400-135992-8	AX07150 MW-17	Total/NA	Water	PrecSep_0	
400-135992-9	AX07151 MW-21	Total/NA	Water	PrecSep_0	
400-135992-10	AX07152 MW-21 DUP	Total/NA	Water	PrecSep_0	
400-135992-11	AX07153 MW-19	Total/NA	Water	PrecSep_0	
MB 160-304204/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304204/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-135992-1 DU	AX07143 MW-6D	Total/NA	Water	PrecSep_0	

Prep Batch: 304232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135992-12	AX07154 MW-18	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

Rad (Continued)

Prep Batch: 304232 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135992-13	AX07155 MW-14	Total/NA	Water	PrecSep_0	
400-135992-14	AX07156 FB-2	Total/NA	Water	PrecSep_0	
400-135992-15	AX07309 MW-11	Total/NA	Water	PrecSep_0	
400-135992-16	AX07310 MW-15	Total/NA	Water	PrecSep_0	
400-135992-17	AX07311 MW-12	Total/NA	Water	PrecSep_0	
400-135992-18	AX07312 MW-16D	Total/NA	Water	PrecSep_0	
400-135992-19	AX07313 MW-13	Total/NA	Water	PrecSep_0	
400-135992-20	AX07314 EB-1	Total/NA	Water	PrecSep_0	
400-135992-21	AX07410 MW-2	Total/NA	Water	PrecSep_0	
MB 160-304232/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-304232/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-135992-12 DU	AX07154 MW-18	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-304145/1-A
Matrix: Water
Analysis Batch: 308226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304145

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1076	U	0.100	0.101	1.00	0.156	pCi/L	04/18/17 14:39	05/11/17 05:56	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					04/18/17 14:39	05/11/17 05:56	1

Lab Sample ID: LCS 160-304145/2-A
Matrix: Water
Analysis Batch: 308226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304145

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	12.88		1.36	1.00	0.142	pCi/L	85	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	105		40 - 110						

Lab Sample ID: 400-135992-1 DU
Matrix: Water
Analysis Batch: 308226

Client Sample ID: AX07143 MW-6D
Prep Type: Total/NA
Prep Batch: 304145

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.180		0.1381	U	0.110	1.00	0.162	pCi/L	0.19	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	104		40 - 110							

Lab Sample ID: MB 160-304149/1-A
Matrix: Water
Analysis Batch: 308225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304149

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01044	U	0.0840	0.0840	1.00	0.168	pCi/L	04/18/17 14:48	05/11/17 05:49	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					04/18/17 14:48	05/11/17 05:49	1

Lab Sample ID: LCS 160-304149/2-A
Matrix: Water
Analysis Batch: 308225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304149

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	13.69		1.46	1.00	0.141	pCi/L	90	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

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

Lab Sample ID: LCS 160-304149/2-A
Matrix: Water
Analysis Batch: 308225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304149

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.9		40 - 110

Lab Sample ID: 400-135992-12 DU
Matrix: Water
Analysis Batch: 308225

Client Sample ID: AX07154 MW-18
Prep Type: Total/NA
Prep Batch: 304149

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0869	U	0.1693	U	0.127	1.00	0.180	pCi/L	0.35	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.6		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-304204/1-A
Matrix: Water
Analysis Batch: 307426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304204

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0000	U	0.302	0.302	1.00	0.534	pCi/L	04/19/17 09:21	05/05/17 14:09	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110	04/19/17 09:21	05/05/17 14:09	1
Y Carrier	84.9		40 - 110	04/19/17 09:21	05/05/17 14:09	1

Lab Sample ID: LCS 160-304204/2-A
Matrix: Water
Analysis Batch: 307426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304204

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.0	18.19		1.94	1.00	0.481	pCi/L	101	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	87.9		40 - 110

Lab Sample ID: 400-135992-1 DU
Matrix: Water
Analysis Batch: 307426

Client Sample ID: AX07143 MW-6D
Prep Type: Total/NA
Prep Batch: 304204

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.154	U	0.05261	U	0.264	1.00	0.463	pCi/L	0.19	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-135992-1 DU
Matrix: Water
Analysis Batch: 307426

Client Sample ID: AX07143 MW-6D
Prep Type: Total/NA
Prep Batch: 304204

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: MB 160-304232/1-A
Matrix: Water
Analysis Batch: 307426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 304232

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1551	U	0.305	0.306	1.00	0.570	pCi/L	04/19/17 11:39	05/05/17 09:45	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110	04/19/17 11:39	05/05/17 09:45	1
Y Carrier	82.6		40 - 110	04/19/17 11:39	05/05/17 09:45	1

Lab Sample ID: LCS 160-304232/2-A
Matrix: Water
Analysis Batch: 307426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 304232

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.0	17.18		1.86	1.00	0.473	pCi/L	96	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.9		40 - 110
Y Carrier	85.6		40 - 110

Lab Sample ID: 400-135992-12 DU
Matrix: Water
Analysis Batch: 307426

Client Sample ID: AX07154 MW-18
Prep Type: Total/NA
Prep Batch: 304232

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0104	U	0.1509	U	0.372	1.00	0.636	pCi/L	0.22	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.6		40 - 110
Y Carrier	82.6		40 - 110

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

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

Lab Sample ID: 400-135992-1 DU
Matrix: Water
Analysis Batch: 308443

Client Sample ID: AX07143 MW-6D
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	0.334	U	0.1907	U	0.286	5.00	0.463	pCi/L	0.24	

Lab Sample ID: 400-135992-12 DU
Matrix: Water
Analysis Batch: 308443

Client Sample ID: AX07154 MW-18
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	0.0973	U	0.3202	U	0.393	5.00	0.636	pCi/L	0.32	



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: Whitmire, Cheyenne R	Lab P#: Whitmire, Cheyenne R	Carrier Tracking No(s):					
Client Contact: Sarah Copeland		Phone: cheyenne.whitmire@testamericainc.com	E-Mail: cheyenne.whitmire@testamericainc.com	COC No: 400-66625-24537.1					
Company: Alabama Power General Test Laboratory		Due Date Requested:	Page: 1 of 2						
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine	Job #: 400-135992						
City: Calera		PO #:	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 Other:						
State, Zip: AL, 35040		W/O #:	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)						
Phone: 205-664-6121 (Tel)		Project #:	Special Instructions/Note:						
Email: sgcopela@southernco.com		SSOW#:	Total Number of Containers: 9316_Ra226_9320_Ra228_Ra228Ra228_GFPc						
Project Name: CCR		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, ENT=tissue, ANA=)				
Site: Congas Ash Pond (S)		AX07143	3/27/17	1302	G	Water	Y	X	MW-6D
		AX07144	3/27/17	1200	G	Water	X	X	MW-6S
		AX07145	3/27/17	1200	G	Water	X	X	MW-6S Dup (Sample Duplicate)
		AX07146	3/27/17	1335	G	Water	X	X	FB-1 (Field Blank)
		AX07147	3/28/17	0930	G	Water	X	X	MW-7
		AX07148	3/28/17	1203	G	Water	X	X	MW-8
		AX07149	3/28/17	1338	G	Water	X	X	MW-9
		AX07150	3/27/17	1130	G	Water	X	X	MW-17
		AX07151	3/28/17	1055	G	Water	X	X	MW-21
		AX07152	3/28/17	1055	G	Water	X	X	MW-21 Dup (Sample Duplicate)

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Skin Sensitizer Acute Toxic Chronic Toxic Corrosive Explosive Radioactive Other (specify)

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

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: **Sarah Copeland** Date/Time: **04/03/2017, 1130** Company: **APC**

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No

Cooler Temperature(s) °C and Other Remarks: **20.6, 20.6 IR7**



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

Chain of Custody Record



Client Information		Sampler: A.G./B.R./J.R.	Lab PIV: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Sarah Copeland		Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	Page: 2 of 2	Job #: 400-135902
Company: Alabama Power General Test Laboratory		Due Date Requested:	Analysis Requested		
Address: 744 County Rd 87 GSC #8		TAT Requested (days):	Preservation Codes: A- HCL M- Hexane B- NaOH N- None C- Zn Acetate O- AsNaO2 D- Nitric Acid P- Na2OAS E- NaHSO4 Q- NaZSOAS F- MeOH R- NaZSO3 G- Anchlor 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:		
City: Calera		PO #:	9315_Ra226_9320_Ra228_Ra226Ra228_GFPC		
State, Zip: AL, 35040		WOC #:	Field/Retained Sample (Yes or No)		
Phone: 205-664-6121 (Tel)		Project #:	Field/Retained Sample (Yes or No)		
Email: sgcopela@southerncco.com		SSOW#:	Field/Retained Sample (Yes or No)		
Project Name: CCR		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other)
Site: Gorgas Ash Pond (6)		3/28/17	1014	G	Water
		3/28/17	1127	G	Water
		3/28/17	1323	G	Water
		3/28/17	1145	G	Water
		3/29/17	1523	G	Water
		3/28/17	1509	G	Water
		3/29/17	0951	G	Water
		3/29/17	1151	G	Water
		3/29/17	1330	G	Water
		3/29/17	1400	G	Water
		3/30/17	1135	G	Water
Sample Identification		Special Instructions/Note:			
AX07153		MW-19			
AX07154		MW-18			
AX07155		MW-14			
AX07156		FB-2 (Field Blank)			
AX07309		MW-11			
AX07310		MW-15			
AX07311		MW-12			
AX07312		MW-16D			
AX07313		MW-13			
AX07314		EB-1 (Equipment Blank)			
AX07410		MW-2			
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client		<input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Sarah Copeland		Date/Time: 04/03/2017; 1130		Company: APC	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			
		Cooler Temperature(s) °C and Other Remarks:			



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-135992-1
SDG Number: Gorgas Ash Pond (6)

Login Number: 135992

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.6°C, 20.6°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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
 SDG: Gorgas Ash Pond (6)

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	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	05-15-17 *
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	03-31-19
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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-135992-1
SDG: Gorgas Ash Pond (6)

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	06-14-17 *
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 Pensacola



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA **03/30/2017 14:00**

Requested Complete Date	Routine
Site Representative	Che George
Collector	Ben Rothschild

Results To	Dustin Brooks, Greg Dyer
Requested By	Greg Dyer
Location	Gorgas Ash Pond

Analysis Requested	Bottle 1 (1L): Radiological
Comments	No temperature preservation requirement for Radium. Sample received by Keith Kornegay 3/30/2017, 1420

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2R	03/30/2017	11:35	1	Groundwater		AX07410

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernmco.com, c=US Date: 2017.04.03 08:23:24 -05'00'</small>	04/03/2017 08:23

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Cooler Temp	NA	
Thermometer ID	NA	
pH Strip ID	5521-28264-20-8	



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA **03/29/2017 15:30**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond

Analysis Requested	Bottle 1 (1L): Radiological		
Comments	No temperature preservation requirement for Radium.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11R	03/28/2017	15:23	1	Groundwater		AX07309

Relinquished By 	Received By Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2017.03.29 15:57:31 -0500</small>	Date/Time 03/29/2017 15:57

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp NA Thermometer ID NA pH Strip ID 5521-28268-20-12
Turbidity ID	3901-20010-2-2	



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/28/2017 15:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Radium duplicate collected at MW-6D No temperature preservation requirement for Radium.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6DR	03/27/2017	13:02	3	Groundwater		AX07143
MW-6SR	03/27/2017	12:00	1	Groundwater		AX07144
MW-6SR DUP	03/27/2017	12:00	1	Sample Duplicate		AX07145
FB-1R	03/27/2017	13:35	1	Field Blank		AX07146
MW-7R	03/28/2017	09:30	1	Groundwater		AX07147
MW-8R	03/28/2017	12:03	1	Groundwater		AX07148
MW-9R	03/28/2017	13:38	1	Groundwater		AX07149

Relinquished By	Received By	Date/Time
<i>Ben Rothschadl</i>	<i>Anthony G...</i>	03/28/2017 14:15
<i>Anthony G...</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2017.03.28 16:59:56 -0500</small>	03/28/2017 16:59

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp
		Thermometer ID
		pH Strip ID
		NA
		NA
		5521-28268-20-12



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer		
	Site Representative		Che George	Requested By	Greg Dyer
	Collector		Anthony Goggins		Location
Analysis Requested	Bottle 1 (1L): Radiological				
Comments	MW-18 R Radium Duplicate No temperature preservation requirement for Radium.				

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19R	03/28/2017	10:14	1	Groundwater		AX07153
MW-18R	03/28/2017	11:27	3	Groundwater		AX07154
MW-14R	03/28/2017	13:23	1	Groundwater		AX07155
FB-2R	03/28/2017	11:45	1	Field Blank		AX07156

Relinquished By <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <i>Anthony Goggins</i> </div>	Received By <div style="border: 1px solid black; padding: 5px; display: inline-block;"> Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.03.28 17:05:16 -05'00'</small> </div>	Date/Time 03/28/2017 17:05

SmarTroll ID	5151-26193-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20009-2-1		
Cooler Temp	NA		
Thermometer ID	NA	pH Strip ID	5521-28268-20-12



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/29/2017 16:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Relinquished to downstairs shipping lab in secure Building 8, General Services Complex at 1700. Received from the downstairs shipping lab. No temperature preservation requirements for Radium.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15R	03/28/2017	15:09	1	Groundwater		AX07310
MW-12R	03/29/2017	09:51	1	Groundwater		AX07311
MW-16DR	03/29/2017	11:51	1	Groundwater		AX07312
MW-13R	03/29/2017	13:30	1	Groundwater		AX07313
EB-1R	03/29/2017	14:00	1	Equipment Blank		AX07314

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.03.30 08:06:01 -05'00'</small>	03/30/2017 08:06

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	
Cooler Temp	NA	
Thermometer ID	NA	
pH Strip ID	5521-28268-20-12	

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1091
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_1091

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the case narrative provided by Test America for these samples:

Job Narrative
400-137172-1
General Chemistry

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AX09792 MW-9 (400-137172-7), AX09793 MW-6S (400-137172-8), AX09794 MW-6S DUP (400-137172-9), AX09795 MW-6D (400-137172-10), AX09796 MW-7 (400-137172-11), AX09797 MW-7 DISS (400-137172-12) and AX09806 MW-18 (400-137172-21). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 352537 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.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1091

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX09786	20170518B & 20170520H	WMWGORAP_1091
AX09787	20170518B & 20170520H	WMWGORAP_1091
AX09788	20170518B & 20170520H	WMWGORAP_1091
AX09789	20170518B & 20170520H	WMWGORAP_1091
AX09790	20170518B & 20170520H	WMWGORAP_1091
AX09791	20170518B & 20170520H	WMWGORAP_1091
AX09792	20170518B & 20170520H	WMWGORAP_1091
AX09793	20170518B & 20170520H	WMWGORAP_1091
AX09794	20170518B & 20170520H	WMWGORAP_1091
AX09795	20170518B & 20170520H	WMWGORAP_1091
AX09796	20170518D_20170519A	WMWGORAP_1091
AX09798	20170518D_20170519A	WMWGORAP_1091
AX09799	20170518D_20170519A	WMWGORAP_1091
AX09800	20170518D_20170519A	WMWGORAP_1091
AX09801	20170518D_20170519A	WMWGORAP_1091
AX09802	20170518D_20170519A	WMWGORAP_1091
AX09803	20170518D_20170519A	WMWGORAP_1091
AX09804	20170518D_20170519A	WMWGORAP_1091
AX09805	20170518D_20170519A	WMWGORAP_1091
AX09806	20170518D_20170519A	WMWGORAP_1091
AX09797	20170519	WMWGORAP_1091
AX09807	20170518E	WMWGORAP_1091

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes. An additional blank rinse was run between each sample to monitor potential Li matrix issues.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 20170519 which is a dissolved sample and does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met, with the following exception:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	AX09806

The concentrations of the matrix spike/matrix spike duplicate added before digestion is less than 30 percent of the sample concentration, causing inaccurate spike recovery information. The laboratory control sample indicates that the digestion and analysis were in control.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.



7. All samples were analyzed at a x2 dilution to compensate for any matrix effects. The following samples were run at a x10 dilution due to final result exceeding the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX09792	Calcium	X10
AX09806	Calcium	X10
AX09806MS	Calcium	X10
AX09806MSD	Calcium	X10

8. The raw data results include results corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1091

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX09786	593306	WMWGORAP_1091
AX09787	593306	WMWGORAP_1091
AX09788	593306	WMWGORAP_1091
AX09789	593306	WMWGORAP_1091
AX09790	593306	WMWGORAP_1091
AX09791	593306	WMWGORAP_1091
AX09792	593306	WMWGORAP_1091
AX09793	593306	WMWGORAP_1091
AX09794	593306	WMWGORAP_1091
AX09795	593306	WMWGORAP_1091
AX09796	593307	WMWGORAP_1091
AX09798	593307	WMWGORAP_1091
AX09799	593307	WMWGORAP_1091
AX09800	593307	WMWGORAP_1091
AX09801	593307	WMWGORAP_1091
AX09802	593307	WMWGORAP_1091
AX09803	593307	WMWGORAP_1091
AX09804	593307	WMWGORAP_1091
AX09805	593307	WMWGORAP_1091
AX09806	593307	WMWGORAP_1091
AX09807	593308	WMWGORAP_1091
AX09797	593194	WMWGORAP_1091

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 593194 which is a dissolved sample and did not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met except for the following:

<u>Analyte</u>	<u>Sample ID</u>
Barium	AX09795

The concentration of this analyte in the sample was greater than 3.3Xs the concentration of the matrix spike added during digestion, causing inaccurate spike recovery information. The laboratory control sample indicates that the digestion and analysis were in control.

<u>Analyte</u>	<u>Sample ID</u>
Selenium	AX09795

Recovery of the matrix spike and matrix spike duplicate failed low for Se. Analyst performed a post digestion spike with serial dilution and confirmed a matrix effect for the sample. Analyst reported all data from original run.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative

 Alabama Power



7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1091

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX09786	593168	WMWGORAP_1091
AX09787	593168	WMWGORAP_1091
AX09788	593168	WMWGORAP_1091
AX09789	593168	WMWGORAP_1091
AX09790	593168	WMWGORAP_1091
AX09791	593168	WMWGORAP_1091
AX09792	593168	WMWGORAP_1091
AX09793	593168	WMWGORAP_1091
AX09794	593168	WMWGORAP_1091
AX09795	593168	WMWGORAP_1091
AX09796	593169	WMWGORAP_1091
AX09798	593169	WMWGORAP_1091
AX09799	593169	WMWGORAP_1091
AX09800	593169	WMWGORAP_1091
AX09801	593169	WMWGORAP_1091
AX09802	593169	WMWGORAP_1091
AX09803	593169	WMWGORAP_1091
AX09804	593169	WMWGORAP_1091
AX09805	593169	WMWGORAP_1091
AX09806	593169	WMWGORAP_1091
AX09807	593170	WMWGORAP_1091
AX09797	593506	WMWGORAP_1091

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory except for Standard 3 (2ppb) in batch 593506. Reran standard 3 due to rises and drops in response signal. The % RSD was still low for the 1st run in spite of the rises and drops, so it was used in the calibration curve. The 2nd run of standard 3 was used as a confirmation of the 1st run. The instrument software would not allow analyst to use the 2nd run in the calibration curve.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1091

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX09786	593017	WMWGORAP_1091
AX09787	593017	WMWGORAP_1091
AX09788	593017	WMWGORAP_1091
AX09789	593017	WMWGORAP_1091
AX09790	593017	WMWGORAP_1091
AX09791	593017	WMWGORAP_1091
AX09793	593017	WMWGORAP_1091
AX09794	593017	WMWGORAP_1091
AX09795	593017	WMWGORAP_1091
AX09796	593017	WMWGORAP_1091
AX09792	593142	WMWGORAP_1091
AX09798	593142	WMWGORAP_1091
AX09799	593142	WMWGORAP_1091
AX09800	593142	WMWGORAP_1091
AX09801	593142	WMWGORAP_1091
AX09802	593142	WMWGORAP_1091
AX09803	593142	WMWGORAP_1091
AX09804	593143	WMWGORAP_1091
AX09805	593143	WMWGORAP_1091
AX09806	593143	WMWGORAP_1091
AX09807	593143	WMWGORAP_1091

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX09789, AX09791 and AX09802 which were <2.5mg.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX09786

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	J 0.00133	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0550	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0737	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	3.41	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	0.0534	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00644	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		50	446	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	10	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.20	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	22	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX09786

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.0000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX09786

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60	0.275	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX09787

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0400	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	6.89	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		25	89.3	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	3.8	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX09787

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115	87.1	70 to 130	9.51	20	
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115	86.0	70 to 130	4.63	20	
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115	87.7	70 to 130	8.04	20	
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115	93.6	70 to 130	8.02	20	
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15	96.8	70 to 130	0.708	20	
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115	86.2	70 to 130	7.58	20	
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046	92.9	70 to 130	0.696	20	
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115	63.0	70 to 130	9.24	20	
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23	93.4	70 to 130	0.0123	20	
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115	91.7	70 to 130	5.54	20	
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115	84.5	70 to 130	8.17	20	
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115	11.1	70 to 130	8.00	20	
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115	94.0	70 to 130	6.95	20	
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115	91.5	70 to 130	6.29	20	
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75	92.9	70 to 130	0.631	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX09787

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60		0.275 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX09788

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.00700	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.240	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0598	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	10.4	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	0.123	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0380	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		25	329	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	6.0	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.72	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	29	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX09788

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX09788

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60		0.275 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX09789

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7	2		0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7	2		0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C	1			25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E	1		0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C	1		0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E	1		1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX09789

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX09789

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60	0.275	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX09790

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	J 0.00135	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0424	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0801	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	3.30	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	0.126	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0502	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		50	342	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	27	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.24	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	28	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX09790

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec
			MB	Limit					Limit	Rec	Limit	Prec	
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115	86.0	70 to 130	4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115	87.1	70 to 130	9.51	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115	87.7	70 to 130	8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115	93.6	70 to 130	8.02	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115	84.5	70 to 130	8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115	11.1	70 to 130	8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115	94.0	70 to 130	6.95	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115	91.5	70 to 130	6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75	92.9	70 to 130	0.631	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23	93.4	70 to 130	0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115	91.7	70 to 130	5.54	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15	96.8	70 to 130	0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115	86.2	70 to 130	7.58	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046	92.9	70 to 130	0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115	63.0	70 to 130	9.24	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX09790

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60		0.275 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX09791

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX09791

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX09791

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60	0.275	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX09792

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.00689	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0234	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	0.187	mg/L
* Calcium, Total	HRG	5/24/2017	EPA 200.7		10	1.00	5	85.0	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	0.0901	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00676	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	469	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	2.7	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.12	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		20	28.0	100	160	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX09792

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX09792

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60		0.130 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX09793

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.00907	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.159	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	1.00	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	73.5	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		50	566	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	24	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		15	21.0	75	300	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX09793

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX09793

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60		0.275 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AX09794

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.00932	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.160	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	0.988	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	73.0	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		50	566	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	24	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		10	14.0	50	330	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AX09794

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AX09794

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60	0.275	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX09795

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.0787	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.716	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	1.08	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	54.7	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	0.237	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00606	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		25	301	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		5	7.00	25	56	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010
 Recovery for Barium was out of spec.
 The spike amount was less than 30% of the sample amount.
 Recovery for Selenium was out of spec.
 A post digestion spike and serial dilution confirms matrix effect.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX09795

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AX09795	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0860	0.0901	0.0939	0.085 to 0.115		86.0	70 to 130		4.63	20
AX09795	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.166	0.182	0.108	0.085 to 0.115		87.1	70 to 130		9.51	20
AX09795	Lithium, Total	mg/L	-0.0000376	0.022	0.20	0.424	0.424	0.184	0.17 to 0.23		93.4	70 to 130		0.0123	20
AX09795	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0917	0.0969	0.0923	0.085 to 0.115		91.7	70 to 130		5.54	20
AX09795	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0845	0.0917	0.0961	0.085 to 0.115		84.5	70 to 130		8.17	20
AX09795	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.727	0.788	0.0994	0.085 to 0.115		11.1	70 to 130		8.00	20
AX09795	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0940	0.101	0.104	0.085 to 0.115		94.0	70 to 130		6.95	20
AX09795	Boron, Total	mg/L	0.000536	0.044	1.00	2.05	2.04	0.956	0.85 to 1.15		96.8	70 to 130		0.708	20
AX09795	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0862	0.0930	0.0983	0.085 to 0.115		86.2	70 to 130		7.58	20
AX09795	Mercury, Total by CVAA	mg/L	0.0000560	0.0005	0.004	0.00372	0.00369	0.00381	0.0034 to 0.0046		92.9	70 to 130		0.696	20
AX09795	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0630	0.0691	0.110	0.085 to 0.115		63.0	70 to 130		9.24	20
AX09795	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0877	0.0950	0.0964	0.085 to 0.115		87.7	70 to 130		8.04	20
AX09795	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.0997	0.108	0.100	0.085 to 0.115		93.6	70 to 130		8.02	20
AX09795	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0915	0.0974	0.101	0.085 to 0.115		91.5	70 to 130		6.29	20
AX09795	Calcium, Total	mg/L	-0.0102	0.22	5.00	59.3	58.9	4.94	4.25 to 5.75		92.9	70 to 130		0.631	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010
 Recovery for Barium was out of spec.
 The spike amount was less than 30% of the sample amount.
 Recovery for Selenium was out of spec.
 A post digestion spike and serial dilution confirms matrix effect.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX09795

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60		0.275 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010
 Recovery for Barium was out of spec.
 The spike amount was less than 30% of the sample amount.
 Recovery for Selenium was out of spec.
 A post digestion spike and serial dilution confirms matrix effect.

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX09796

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.202	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0724	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	1.41	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	14.5	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	0.143	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.160	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/1/2017	SM 2540C		1		25	362	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	4.6	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		10	14.0	50	140	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX09796

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX09806	Cadmium, Total	mg/L	0.0000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX09796

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09796	Solids, Dissolved	mg/L	-6.0	25			364	43.0	40 to 60		0.275 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AX09797

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0010	0.005	0.211	mg/L
* Barium, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0020	0.01	0.0620	mg/L
* Beryllium, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Dissolved	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	1.78	mg/L
* Calcium, Dissolved	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	18.1	mg/L
* Cadmium, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	ABB	5/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	0.183	mg/L
* Molybdenum, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0020	0.01	0.203	mg/L
* Lead, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Dissolved	JHK	5/4/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Chloride, Diss, Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	4.5	mg/L
* Fluoride, Diss, Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Diss, Test America	SGC	5/16/2017	SM 4500 SO4_E		10	14.0	50	140	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AX09797

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AX09797	Antimony, Dissolved	mg/L	0.00000509	0.00132	0.10	0.0782	0.0799			78.2	70 to 130	2.15	20
AX09797	Lithium, Dissolved	mg/L	-0.0000249	0.022	0.20	0.392	0.398	0.196	0.17 to 0.23	104	70 to 130	1.46	20
AX09797	Mercury, Dissolved by CVAA	mg/L	-0.00000344	0.0005	0.004	0.00373	0.00369	0.00377	0.0034 to 0.0046	93.2	70 to 130	0.984	20
AX09797	Arsenic, Dissolved	mg/L	0.00000136	0.0022	0.10	0.304	0.312			92.5	70 to 130	2.81	20
AX09797	Beryllium, Dissolved	mg/L	0.00000131	0.00132	0.10	0.0888	0.0878			88.8	70 to 130	1.15	20
AX09797	Boron, Dissolved	mg/L	0.000279	0.044	1.00	2.74	2.77	0.978	0.85 to 1.15	96.1	70 to 130	1.11	20
AX09797	Cobalt, Dissolved	mg/L	-0.000000224	0.0044	0.10	0.0810	0.0837			81.0	70 to 130	3.29	20
AX09797	Cadmium, Dissolved	mg/L	-0.000000000	0.00044	0.10	0.0907	0.0904			90.7	70 to 130	0.327	20
AX09797	Calcium, Dissolved	mg/L	-0.0159	0.22	5.00	22.9	22.9	5.19	4.25 to 5.75	97.0	70 to 130	0.114	20
AX09797	Lead, Dissolved	mg/L	-0.00000111	0.0022	0.10	0.0869	0.0878			86.9	70 to 130	1.03	20
AX09797	Molybdenum, Dissolved	mg/L	-0.00000141	0.0044	0.10	0.299	0.307			96.1	70 to 130	2.79	20
AX09797	Chromium, Dissolved	mg/L	0.0000140	0.0044	0.10	0.0864	0.0889			86.4	70 to 130	2.87	20
AX09797	Selenium, Dissolved	mg/L	0.0000246	0.0044	0.10	0.0834	0.0888			83.4	70 to 130	6.21	20
AX09797	Barium, Dissolved	mg/L	0.00000446	0.0044	0.10	0.146	0.149			84.2	70 to 130	1.93	20
AX09797	Thallium, Dissolved	mg/L	-0.000000618	0.00044	0.10	0.0946	0.0957			94.6	70 to 130	1.10	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 24-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-7 Diss

Laboratory ID Number: AX09797

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LFB	Limit	Rec	Prec
							Duplicate	LFB		Limit	Limit

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX09798

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.222	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	46.0	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0123	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	234	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	5.5	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.13	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	23	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX09798

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX09798

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec		
			Limit	Limit			Duplicate	LFB	Limit	Limit	Prec	Limit
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60		0.130	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX09799

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	0.0372	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.127	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	0.234	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	34.6	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0248	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	332	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	9.8	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.49	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	J 1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX09799

Sample	Analysis	Units	MB	MB			MS	MSD	LFB		Rec		Prec	Limit
				Limit	Spike	MS			Limit	Rec	Limit	Prec		
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20	
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20	
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20	
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20	
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20	
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20	
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20	
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20	
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20	
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20	
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20	
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20	
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20	
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20	
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX09799

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60	0.130	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX09800

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	0.177	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7	2		0.1	0.5	48.1	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7	2		0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C	1			25	202	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E	1		0.60	2.00	3.7	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C	1		0.032	0.10	0.16	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E	1		1.40	5.00	11	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX09800

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX09800

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec		
			Limit	Limit			Duplicate	LFB	Limit	Limit		
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60		0.130	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX09801

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	J 0.00110	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.246	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	35.6	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0431	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00212	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	222	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	7.0	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.16	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	13	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX09801

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX09801

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60	0.130	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX09802

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX09802

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX09802

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60	0.130	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX09803

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.0770	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0818	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	0.646	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0459	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00444	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	384	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	10	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	1.4	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	29	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX09803

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit
			MB	Limit					Limit	Rec	Limit	Prec	
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX09803

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09803	Solids, Dissolved	mg/L	-3.0	25			383	50.0	40 to 60	0.130	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX09804

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.371	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0273	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	42.8	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0267	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00845	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	265	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.31	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	J 4.6	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX09804

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20	
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20	
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20	
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20	
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20	
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20	
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20	
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20	
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20	
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20	
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20	
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20	
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20	
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20	
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX09804

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX09807	Solids, Dissolved	mg/L	-3.0	25			218	50.0	40 to 60	1.40	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AX09805

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.353	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0264	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	42.7	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0268	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00890	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	269	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.32	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	J 4.6	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AX09805

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115		92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115		98.8	70 to 130	1.93	20
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15		99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115		95.2	70 to 130	0.494	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115		94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23		106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115		96.0	70 to 130	2.35	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115		101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115		102	70 to 130	0.0977	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115		95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115		92.0	70 to 130	2.60	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115		95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75		140	70 to 130	1.82	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115		99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046		97.4	70 to 130	0.540	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-19 Dup

Laboratory ID Number: AX09805

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09807	Solids, Dissolved	mg/L	-3.0	25			218	50.0	40 to 60	1.40	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX09806

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8	5		0.0010	0.005	0.0722	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	0.0587	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7	2		0.02	0.1	1.53	mg/L
* Calcium, Total	HRG	5/25/2017	EPA 200.7	10		1.00	5	159	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7	2		0.01	0.05	0.240	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	0.0348	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C	1			50	1090	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E	1		0.60	2.00	34	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C	1		0.032	0.10	0.31	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E	25		35.0	130	600	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010
 Recovery for Calcium is out of spec.
 The spike amount is less than 30% of the sample amount.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX09806

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AX09806	Boron, Total	mg/L	0.000516	0.044	1.00	2.52	2.51	0.958	0.85 to 1.15	99.4	70 to 130	0.592	20
AX09806	Chromium, Total	mg/L	0.0000326	0.0044	0.10	0.0952	0.0957	0.0964	0.085 to 0.115	95.2	70 to 130	0.494	20
AX09806	Cadmium, Total	mg/L	0.00000449	0.00044	0.10	0.0998	0.0986	0.104	0.085 to 0.115	99.8	70 to 130	1.15	20
AX09806	Mercury, Total by CVAA	mg/L	0.0000555	0.0005	0.004	0.00389	0.00392	0.00385	0.0034 to 0.0046	97.4	70 to 130	0.540	20
AX09806	Beryllium, Total	mg/L	0.0000572	0.00132	0.10	0.0959	0.0940	0.101	0.085 to 0.115	95.9	70 to 130	2.01	20
AX09806	Lead, Total	mg/L	0.0000303	0.0022	0.10	0.0920	0.0896	0.0939	0.085 to 0.115	92.0	70 to 130	2.60	20
AX09806	Barium, Total	mg/L	0.00000578	0.0044	0.10	0.154	0.154	0.0994	0.085 to 0.115	95.4	70 to 130	0.354	20
AX09806	Calcium, Total	mg/L	-0.00969	0.22	5.0	166.	163.	4.97	4.25 to 5.75	140	70 to 130	1.82	20
AX09806	Arsenic, Total	mg/L	0.0000104	0.0022	0.10	0.173	0.174	0.108	0.085 to 0.115	101	70 to 130	0.606	20
AX09806	Molybdenum, Total	mg/L	0.00000636	0.0044	0.10	0.137	0.137	0.100	0.085 to 0.115	102	70 to 130	0.0977	20
AX09806	Cobalt, Total	mg/L	0.00000172	0.0044	0.10	0.0947	0.0940	0.0983	0.085 to 0.115	94.7	70 to 130	0.819	20
AX09806	Lithium, Total	mg/L	-0.0000334	0.022	0.20	0.451	0.446	0.184	0.17 to 0.23	106	70 to 130	1.14	20
AX09806	Selenium, Total	mg/L	0.0000755	0.0044	0.10	0.0960	0.0983	0.110	0.085 to 0.115	96.0	70 to 130	2.35	20
AX09806	Antimony, Total	mg/L	0.0000394	0.00132	0.10	0.0920	0.0909	0.0961	0.085 to 0.115	92.0	70 to 130	1.21	20
AX09806	Thallium, Total	mg/L	0.0000287	0.00044	0.10	0.0988	0.0970	0.0923	0.085 to 0.115	98.8	70 to 130	1.93	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010
 Recovery for Calcium is out of spec.
 The spike amount is less than 30% of the sample amount.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX09806

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09807	Solids, Dissolved	mg/L	-3.0	25			218	50.0	40 to 60	1.40	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID: E81010
 Recovery for Calcium is out of spec.
 The spike amount is less than 30% of the sample amount.

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX09807

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	0.323	mg/L
* Beryllium, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0264	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	33.8	mg/L
* Cadmium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/3/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	J 0.0318	mg/L
* Molybdenum, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/3/2017	SM 2540C		1		25	212	mg/L
* Chloride, Total, by Test America	SGC	5/16/2017	SM 4500 Cl_E		1	0.60	2.00	3.2	mg/L
* Fluoride, Total, by Test America	SGC	5/16/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total, by Test America	SGC	5/16/2017	SM 4500 SO4_E		1	1.40	5.00	13	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX09807

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX09807	Calcium, Total	mg/L	-0.0109	0.22	5.00	38.4	38.9	5.02	4.25 to 5.75	91.0	70 to 130	1.25	20
AX09807	Chromium, Total	mg/L	0.0000171	0.0044	0.10	0.0965	0.0967	0.0942	0.085 to 0.115	96.5	70 to 130	0.178	20
AX09807	Lead, Total	mg/L	0.00000819	0.0022	0.10	0.0922	0.0906	0.0974	0.085 to 0.115	92.2	70 to 130	1.79	20
AX09807	Antimony, Total	mg/L	0.0000335	0.00132	0.10	0.0918	0.0920	0.0913	0.085 to 0.115	91.8	70 to 130	0.185	20
AX09807	Boron, Total	mg/L	0.000623	0.044	1.00	0.969	0.988	0.958	0.85 to 1.15	94.3	70 to 130	1.92	20
AX09807	Molybdenum, Total	mg/L	0.00000965	0.0044	0.10	0.104	0.105	0.0967	0.085 to 0.115	104	70 to 130	0.653	20
AX09807	Lithium, Total	mg/L	-0.0000407	0.022	0.20	0.225	0.228	0.183	0.17 to 0.23	96.6	70 to 130	1.48	20
AX09807	Mercury, Total by CVAA	mg/L	0.0000570	0.0005	0.004	0.00393	0.00394	0.00390	0.0034 to 0.0046	98.3	70 to 130	0.145	20
AX09807	Thallium, Total	mg/L	0.00000601	0.00044	0.10	0.0993	0.0973	0.0959	0.085 to 0.115	99.3	70 to 130	2.04	20
AX09807	Barium, Total	mg/L	-0.00000372	0.0044	0.10	0.422	0.423	0.0974	0.085 to 0.115	98.6	70 to 130	0.364	20
AX09807	Selenium, Total	mg/L	0.0000607	0.0044	0.10	0.0999	0.101	0.0995	0.085 to 0.115	99.9	70 to 130	1.21	20
AX09807	Arsenic, Total	mg/L	0.00000793	0.0022	0.10	0.101	0.100	0.0986	0.085 to 0.115	101	70 to 130	0.668	20
AX09807	Cadmium, Total	mg/L	0.00000221	0.00044	0.10	0.103	0.100	0.101	0.085 to 0.115	103	70 to 130	2.44	20
AX09807	Beryllium, Total	mg/L	0.0000253	0.00132	0.10	0.0984	0.0954	0.0986	0.085 to 0.115	98.4	70 to 130	3.16	20
AX09807	Cobalt, Total	mg/L	-0.000000229	0.0044	0.10	0.0939	0.0932	0.0961	0.085 to 0.115	93.9	70 to 130	0.829	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 26-Apr-17
 Customer ID:
 Delivery Date: 27-Apr-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX09807

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX09807	Solids, Dissolved	mg/L	-3.0	25			218	50.0	40 to 60	1.40	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Test America Pensacola NELAP ID:E81010

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 04/27/2017 08:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions		
Comments	All anions outsourced to Test America. 2.0mL HNO3 added to Bottle 1 & 1.5mL HNO3 added to Bottle 2 on 4/27/17 (AX09797). AX09797 filtered using 0.45 um filter. Filter ID: 5470-27978-9-2.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	04/24/2017	11:44	4	Groundwater		AX09793
MW-6S DUP	04/24/2017	11:44	4	Sample Duplicate		AX09794
MW-6D	04/24/2017	12:48	4	Groundwater		AX09795
MW-7	04/24/2017	15:47	4	Groundwater		AX09796
MW-7 DIS	04/24/2017	16:10	4	Groundwater	✓	AX09797
MW-11	04/26/2017	09:47	4	Groundwater		AX09798
MW-12	04/26/2017	11:54	4	Groundwater		AX09799
MW-13	04/26/2017	13:20	4	Groundwater		AX09800
MW-14	04/26/2017	14:53	4	Groundwater		AX09801
FB-1	04/26/2017	15:55	4	Field Blank		AX09802

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopella@southernco.com, c=US Date: 2017.04.27 08:10:51 -0500</small>	04/27/2017 08:10

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp
		0.1 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5521-28268-20-12

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: 400-137172-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (7)

Client Project/Site: CCR Plant Gorgas

For:

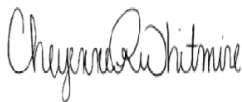
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

5/12/2017 2:40:12 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



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	17
QC Sample Results	20
Chain of Custody	26
Receipt Checklists	28
Certification Summary	29

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Job ID: 400-137172-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-137172-1

General Chemistry

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AX09792 MW-9 (400-137172-7), AX09793 MW-6S (400-137172-8), AX09794 MW-6S DUP (400-137172-9), AX09795 MW-6D (400-137172-10), AX09796 MW-7 (400-137172-11), AX09797 MW-7 DISS (400-137172-12) and AX09806 MW-18 (400-137172-21). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 352537 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 Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Method	Method Description	Protocol	Laboratory
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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137172-1	AX09786 MW-17	Water	04/24/17 12:45	04/28/17 09:13
400-137172-2	AX09787 MW-8	Water	04/24/17 15:28	04/28/17 09:13
400-137172-3	AX09788 MW-15	Water	04/26/17 11:28	04/28/17 09:13
400-137172-4	AX09789 FB-2	Water	04/26/17 11:55	04/28/17 09:13
400-137172-5	AX09790 MW-21	Water	04/26/17 14:34	04/28/17 09:13
400-137172-6	AX09791 EB-1	Water	04/26/17 15:07	04/28/17 09:13
400-137172-7	AX09792 MW-9	Water	04/26/17 16:37	04/28/17 09:13
400-137172-8	AX09793 MW-6S	Water	04/24/17 11:44	04/28/17 09:13
400-137172-9	AX09794 MW-6S DUP	Water	04/24/17 11:44	04/28/17 09:13
400-137172-10	AX09795 MW-6D	Water	04/24/17 12:48	04/28/17 09:13
400-137172-11	AX09796 MW-7	Water	04/24/17 15:47	04/28/17 09:13
400-137172-12	AX09797 MW-7 DISS	Water	04/24/17 16:10	04/28/17 09:13
400-137172-13	AX09798 MW-11	Water	04/26/17 09:47	04/28/17 09:13
400-137172-14	AX09799 MW-12	Water	04/26/17 11:54	04/28/17 09:13
400-137172-15	AX09800 MW-13	Water	04/26/17 13:20	04/28/17 09:13
400-137172-16	AX09801 MW-14	Water	04/26/17 14:53	04/28/17 09:13
400-137172-17	AX09802 FB-1	Water	04/26/17 15:55	04/28/17 09:13
400-137172-18	AX09803 MW-2	Water	04/26/17 11:00	04/28/17 09:13
400-137172-19	AX09804 MW-19	Water	04/26/17 12:25	04/28/17 09:13
400-137172-20	AX09805 MW-19 DUP	Water	04/26/17 12:25	04/28/17 09:13
400-137172-21	AX09806 MW-18	Water	04/26/17 13:42	04/28/17 09:13
400-137172-22	AX09807 MW-16D	Water	04/26/17 15:16	04/28/17 09:13

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09786 MW-17

Lab Sample ID: 400-137172-1

Date Collected: 04/24/17 12:45

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	0.60	mg/L			05/04/17 17:03	1
Fluoride	0.20		0.10	0.032	mg/L			05/03/17 15:59	1
Sulfate	22		5.0	1.4	mg/L			05/04/17 17:09	1

Client Sample ID: AX09787 MW-8

Lab Sample ID: 400-137172-2

Date Collected: 04/24/17 15:28

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	0.60	mg/L			05/04/17 17:03	1
Fluoride	0.090	J	0.10	0.032	mg/L			05/03/17 16:02	1
Sulfate	2.7	J	5.0	1.4	mg/L			05/04/17 17:09	1

Client Sample ID: AX09788 MW-15

Lab Sample ID: 400-137172-3

Date Collected: 04/26/17 11:28

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		2.0	0.60	mg/L			05/04/17 17:03	1
Fluoride	0.72		0.10	0.032	mg/L			05/03/17 16:09	1
Sulfate	29		5.0	1.4	mg/L			05/04/17 17:09	1

Client Sample ID: AX09789 FB-2

Lab Sample ID: 400-137172-4

Date Collected: 04/26/17 11:55

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/04/17 17:03	1
Fluoride	<0.032		0.10	0.032	mg/L			05/03/17 16:15	1
Sulfate	<1.4		5.0	1.4	mg/L			05/04/17 17:09	1

Client Sample ID: AX09790 MW-21

Lab Sample ID: 400-137172-5

Date Collected: 04/26/17 14:34

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		2.0	0.60	mg/L			05/04/17 17:03	1
Fluoride	0.24		0.10	0.032	mg/L			05/03/17 16:17	1
Sulfate	28		5.0	1.4	mg/L			05/04/17 17:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09791 EB-1

Lab Sample ID: 400-137172-6

Date Collected: 04/26/17 15:07

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/04/17 17:12	1
Fluoride	<0.032		0.10	0.032	mg/L			05/03/17 16:19	1
Sulfate	<1.4		5.0	1.4	mg/L			05/04/17 17:15	1

Client Sample ID: AX09792 MW-9

Lab Sample ID: 400-137172-7

Date Collected: 04/26/17 16:37

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		2.0	0.60	mg/L			05/04/17 17:12	1
Fluoride	0.12		0.10	0.032	mg/L			05/03/17 16:21	1
Sulfate	160		100	28	mg/L			05/11/17 07:51	20

Client Sample ID: AX09793 MW-6S

Lab Sample ID: 400-137172-8

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24		2.0	0.60	mg/L			05/04/17 17:12	1
Fluoride	0.080	J	0.10	0.032	mg/L			05/03/17 16:23	1
Sulfate	300		75	21	mg/L			05/05/17 11:48	15

Client Sample ID: AX09794 MW-6S DUP

Lab Sample ID: 400-137172-9

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	0.090	J	0.10	0.032	mg/L			05/03/17 15:43	1
Sulfate	330	F1	50	14	mg/L			05/05/17 12:43	10

Client Sample ID: AX09795 MW-6D

Lab Sample ID: 400-137172-10

Date Collected: 04/24/17 12:48

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	0.11		0.10	0.032	mg/L			05/03/17 16:25	1
Sulfate	56		25	7.0	mg/L			05/05/17 11:44	5

Client Sample ID: AX09796 MW-7

Lab Sample ID: 400-137172-11

Date Collected: 04/24/17 15:47

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		2.0	0.60	mg/L			05/05/17 11:14	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09796 MW-7

Lab Sample ID: 400-137172-11

Date Collected: 04/24/17 15:47

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.080	J	0.10	0.032	mg/L			05/03/17 16:27	1
Sulfate	140		50	14	mg/L			05/05/17 11:44	10

Client Sample ID: AX09797 MW-7 DISS

Lab Sample ID: 400-137172-12

Date Collected: 04/24/17 16:10

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride, Dissolved	4.5		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride, Dissolved	0.090	J	0.10	0.032	mg/L			05/03/17 17:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate, Dissolved	140		50	14	mg/L			05/05/17 11:44	10

Client Sample ID: AX09798 MW-11

Lab Sample ID: 400-137172-13

Date Collected: 04/26/17 09:47

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	0.13		0.10	0.032	mg/L			05/03/17 17:12	1
Sulfate	23		5.0	1.4	mg/L			05/05/17 11:07	1

Client Sample ID: AX09799 MW-12

Lab Sample ID: 400-137172-14

Date Collected: 04/26/17 11:54

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.8		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	0.49		0.10	0.032	mg/L			05/03/17 17:14	1
Sulfate	1.4	J	5.0	1.4	mg/L			05/05/17 11:07	1

Client Sample ID: AX09800 MW-13

Lab Sample ID: 400-137172-15

Date Collected: 04/26/17 13:20

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	0.16		0.10	0.032	mg/L			05/03/17 17:16	1
Sulfate	11		5.0	1.4	mg/L			05/05/17 11:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09801 MW-14

Lab Sample ID: 400-137172-16

Date Collected: 04/26/17 14:53

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	0.16		0.10	0.032	mg/L			05/03/17 17:30	1
Sulfate	13		5.0	1.4	mg/L			05/05/17 11:07	1

Client Sample ID: AX09802 FB-1

Lab Sample ID: 400-137172-17

Date Collected: 04/26/17 15:55

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	<0.032		0.10	0.032	mg/L			05/03/17 17:18	1
Sulfate	<1.4		5.0	1.4	mg/L			05/05/17 11:07	1

Client Sample ID: AX09803 MW-2

Lab Sample ID: 400-137172-18

Date Collected: 04/26/17 11:00

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	0.60	mg/L			05/05/17 11:14	1
Fluoride	1.4		0.10	0.032	mg/L			05/03/17 17:20	1
Sulfate	29		5.0	1.4	mg/L			05/05/17 11:20	1

Client Sample ID: AX09804 MW-19

Lab Sample ID: 400-137172-19

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			05/05/17 11:17	1
Fluoride	0.31		0.10	0.032	mg/L			05/03/17 17:22	1
Sulfate	4.6	J	5.0	1.4	mg/L			05/05/17 11:20	1

Client Sample ID: AX09805 MW-19 DUP

Lab Sample ID: 400-137172-20

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			05/05/17 11:17	1
Fluoride	0.32		0.10	0.032	mg/L			05/03/17 17:36	1
Sulfate	4.6	J	5.0	1.4	mg/L			05/05/17 11:20	1

Client Sample ID: AX09806 MW-18

Lab Sample ID: 400-137172-21

Date Collected: 04/26/17 13:42

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34		2.0	0.60	mg/L			05/05/17 11:17	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09806 MW-18

Lab Sample ID: 400-137172-21

Date Collected: 04/26/17 13:42

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.31		0.10	0.032	mg/L			05/03/17 17:40	1
Sulfate	600		130	35	mg/L			05/05/17 11:48	25

Client Sample ID: AX09807 MW-16D

Lab Sample ID: 400-137172-22

Date Collected: 04/26/17 15:16

Matrix: Water

Date Received: 04/28/17 09:13

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.60	mg/L			05/05/17 11:55	1
Fluoride	0.11		0.10	0.032	mg/L			05/03/17 17:04	1
Sulfate	13		5.0	1.4	mg/L			05/05/17 11:39	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09786 MW-17
Date Collected: 04/24/17 12:45
Date Received: 04/28/17 09:13

Lab Sample ID: 400-137172-1
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	352426	05/04/17 17:03	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 15:59	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352431	05/04/17 17:09	BJB	TAL PEN

Client Sample ID: AX09787 MW-8
Date Collected: 04/24/17 15:28
Date Received: 04/28/17 09:13

Lab Sample ID: 400-137172-2
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	352426	05/04/17 17:03	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:02	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352431	05/04/17 17:09	BJB	TAL PEN

Client Sample ID: AX09788 MW-15
Date Collected: 04/26/17 11:28
Date Received: 04/28/17 09:13

Lab Sample ID: 400-137172-3
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	352426	05/04/17 17:03	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:09	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352431	05/04/17 17:09	BJB	TAL PEN

Client Sample ID: AX09789 FB-2
Date Collected: 04/26/17 11:55
Date Received: 04/28/17 09:13

Lab Sample ID: 400-137172-4
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	352426	05/04/17 17:03	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352431	05/04/17 17:09	BJB	TAL PEN

Client Sample ID: AX09790 MW-21
Date Collected: 04/26/17 14:34
Date Received: 04/28/17 09:13

Lab Sample ID: 400-137172-5
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	352426	05/04/17 17:03	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352431	05/04/17 17:09	BJB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09791 EB-1

Lab Sample ID: 400-137172-6

Date Collected: 04/26/17 15:07

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352426	05/04/17 17:12	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352431	05/04/17 17:15	BJB	TAL PEN

Client Sample ID: AX09792 MW-9

Lab Sample ID: 400-137172-7

Date Collected: 04/26/17 16:37

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352426	05/04/17 17:12	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	353139	05/11/17 07:51	RRC	TAL PEN

Client Sample ID: AX09793 MW-6S

Lab Sample ID: 400-137172-8

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352426	05/04/17 17:12	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	352537	05/05/17 11:48	BJB	TAL PEN

Client Sample ID: AX09794 MW-6S DUP

Lab Sample ID: 400-137172-9

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 15:43	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	352537	05/05/17 12:43	BJB	TAL PEN

Client Sample ID: AX09795 MW-6D

Lab Sample ID: 400-137172-10

Date Collected: 04/24/17 12:48

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:25	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	352537	05/05/17 11:44	BJB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09796 MW-7

Lab Sample ID: 400-137172-11

Date Collected: 04/24/17 15:47

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352226	05/03/17 16:27	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	352537	05/05/17 11:44	BJB	TAL PEN

Client Sample ID: AX09797 MW-7 DISS

Lab Sample ID: 400-137172-12

Date Collected: 04/24/17 16:10

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:10	SLT	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		10	352537	05/05/17 11:44	BJB	TAL PEN

Client Sample ID: AX09798 MW-11

Lab Sample ID: 400-137172-13

Date Collected: 04/26/17 09:47

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:12	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:07	BJB	TAL PEN

Client Sample ID: AX09799 MW-12

Lab Sample ID: 400-137172-14

Date Collected: 04/26/17 11:54

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:14	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:07	BJB	TAL PEN

Client Sample ID: AX09800 MW-13

Lab Sample ID: 400-137172-15

Date Collected: 04/26/17 13:20

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:07	BJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09801 MW-14

Lab Sample ID: 400-137172-16

Date Collected: 04/26/17 14:53

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:30	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:07	BJB	TAL PEN

Client Sample ID: AX09802 FB-1

Lab Sample ID: 400-137172-17

Date Collected: 04/26/17 15:55

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:18	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:07	BJB	TAL PEN

Client Sample ID: AX09803 MW-2

Lab Sample ID: 400-137172-18

Date Collected: 04/26/17 11:00

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:14	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:20	BJB	TAL PEN

Client Sample ID: AX09804 MW-19

Lab Sample ID: 400-137172-19

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:17	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:20	BJB	TAL PEN

Client Sample ID: AX09805 MW-19 DUP

Lab Sample ID: 400-137172-20

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:17	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:36	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:20	BJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09806 MW-18

Lab Sample ID: 400-137172-21

Date Collected: 04/26/17 13:42

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:17	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		25	352537	05/05/17 11:48	BJB	TAL PEN

Client Sample ID: AX09807 MW-16D

Lab Sample ID: 400-137172-22

Date Collected: 04/26/17 15:16

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352538	05/05/17 11:55	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	352236	05/03/17 17:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	352537	05/05/17 11:39	BJB	TAL PEN

Laboratory References:

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

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

General Chemistry

Analysis Batch: 352226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-1	AX09786 MW-17	Total/NA	Water	SM 4500 F C	
400-137172-2	AX09787 MW-8	Total/NA	Water	SM 4500 F C	
400-137172-3	AX09788 MW-15	Total/NA	Water	SM 4500 F C	
400-137172-4	AX09789 FB-2	Total/NA	Water	SM 4500 F C	
400-137172-5	AX09790 MW-21	Total/NA	Water	SM 4500 F C	
400-137172-6	AX09791 EB-1	Total/NA	Water	SM 4500 F C	
400-137172-7	AX09792 MW-9	Total/NA	Water	SM 4500 F C	
400-137172-8	AX09793 MW-6S	Total/NA	Water	SM 4500 F C	
400-137172-9	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 F C	
400-137172-10	AX09795 MW-6D	Total/NA	Water	SM 4500 F C	
400-137172-11	AX09796 MW-7	Total/NA	Water	SM 4500 F C	
MB 400-352226/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-352226/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137172-9 MS	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 F C	
400-137172-9 MSD	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 F C	
400-137172-3 DU	AX09788 MW-15	Total/NA	Water	SM 4500 F C	

Analysis Batch: 352236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-12	AX09797 MW-7 DISS	Total/NA	Water	SM 4500 F C	
400-137172-13	AX09798 MW-11	Total/NA	Water	SM 4500 F C	
400-137172-14	AX09799 MW-12	Total/NA	Water	SM 4500 F C	
400-137172-15	AX09800 MW-13	Total/NA	Water	SM 4500 F C	
400-137172-16	AX09801 MW-14	Total/NA	Water	SM 4500 F C	
400-137172-17	AX09802 FB-1	Total/NA	Water	SM 4500 F C	
400-137172-18	AX09803 MW-2	Total/NA	Water	SM 4500 F C	
400-137172-19	AX09804 MW-19	Total/NA	Water	SM 4500 F C	
400-137172-20	AX09805 MW-19 DUP	Total/NA	Water	SM 4500 F C	
400-137172-21	AX09806 MW-18	Total/NA	Water	SM 4500 F C	
400-137172-22	AX09807 MW-16D	Total/NA	Water	SM 4500 F C	
MB 400-352236/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-352236/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137172-16 MS	AX09801 MW-14	Total/NA	Water	SM 4500 F C	
400-137172-16 MSD	AX09801 MW-14	Total/NA	Water	SM 4500 F C	
400-137172-22 MS	AX09807 MW-16D	Total/NA	Water	SM 4500 F C	
400-137172-22 MSD	AX09807 MW-16D	Total/NA	Water	SM 4500 F C	
400-137172-20 DU	AX09805 MW-19 DUP	Total/NA	Water	SM 4500 F C	

Analysis Batch: 352426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-1	AX09786 MW-17	Total/NA	Water	SM 4500 Cl- E	
400-137172-2	AX09787 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-137172-3	AX09788 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-137172-4	AX09789 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-137172-5	AX09790 MW-21	Total/NA	Water	SM 4500 Cl- E	
400-137172-6	AX09791 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-137172-7	AX09792 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-137172-8	AX09793 MW-6S	Total/NA	Water	SM 4500 Cl- E	
MB 400-352426/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-352426/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-352426/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

General Chemistry (Continued)

Analysis Batch: 352426 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137046-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-137046-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 352431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-1	AX09786 MW-17	Total/NA	Water	SM 4500 SO4 E	
400-137172-2	AX09787 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-137172-3	AX09788 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-137172-4	AX09789 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-137172-5	AX09790 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-137172-6	AX09791 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-352431/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-352431/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-352431/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137046-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-137046-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 352537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-8	AX09793 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-137172-9	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-137172-10	AX09795 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-137172-11	AX09796 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-137172-12	AX09797 MW-7 DISS	Dissolved	Water	SM 4500 SO4 E	
400-137172-13	AX09798 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-137172-14	AX09799 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-137172-15	AX09800 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-137172-16	AX09801 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-137172-17	AX09802 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-137172-18	AX09803 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-137172-19	AX09804 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-137172-20	AX09805 MW-19 DUP	Total/NA	Water	SM 4500 SO4 E	
400-137172-21	AX09806 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-137172-22	AX09807 MW-16D	Total/NA	Water	SM 4500 SO4 E	
MB 400-352537/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-352537/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-352537/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137172-9 MS	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-137172-9 MSD	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-137172-16 MS	AX09801 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-137172-16 MSD	AX09801 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-137172-22 MS	AX09807 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-137172-22 MSD	AX09807 MW-16D	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 352538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-9	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 Cl- E	
400-137172-10	AX09795 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-137172-11	AX09796 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-137172-12	AX09797 MW-7 DISS	Total/NA	Water	SM 4500 Cl- E	
400-137172-13	AX09798 MW-11	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
SDG: Gorgas Ash Pond (7)

General Chemistry (Continued)

Analysis Batch: 352538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-14	AX09799 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-137172-15	AX09800 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-137172-16	AX09801 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-137172-17	AX09802 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-137172-18	AX09803 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-137172-19	AX09804 MW-19	Total/NA	Water	SM 4500 Cl- E	
400-137172-20	AX09805 MW-19 DUP	Total/NA	Water	SM 4500 Cl- E	
400-137172-21	AX09806 MW-18	Total/NA	Water	SM 4500 Cl- E	
400-137172-22	AX09807 MW-16D	Total/NA	Water	SM 4500 Cl- E	
MB 400-352538/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-352538/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-352538/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-137172-9 MS	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 Cl- E	
400-137172-9 MSD	AX09794 MW-6S DUP	Total/NA	Water	SM 4500 Cl- E	
400-137172-16 MS	AX09801 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-137172-16 MSD	AX09801 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-137172-22 MS	AX09807 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-137172-22 MSD	AX09807 MW-16D	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 353139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137172-7	AX09792 MW-9	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-352426/6
Matrix: Water
Analysis Batch: 352426

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/04/17 16:37	1

Lab Sample ID: LCS 400-352426/7
Matrix: Water
Analysis Batch: 352426

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 400-352426/3
Matrix: Water
Analysis Batch: 352426

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	1.70	J	mg/L		85	50 - 150

Lab Sample ID: 400-137046-B-4 MS
Matrix: Water
Analysis Batch: 352426

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	4.2		10.0	12.1		mg/L		78	73 - 120

Lab Sample ID: 400-137046-B-4 MSD
Matrix: Water
Analysis Batch: 352426

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	Limit
Chloride	4.2		10.0	11.9		mg/L		77	73 - 120	1	8

Lab Sample ID: MB 400-352538/6
Matrix: Water
Analysis Batch: 352538

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/05/17 09:24	1
Chloride, Dissolved	<0.60		2.0	0.60	mg/L			05/05/17 09:24	1

Lab Sample ID: LCS 400-352538/7
Matrix: Water
Analysis Batch: 352538

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
Chloride, Dissolved	30.0	31.4		mg/L		105	90 - 110

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

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

Lab Sample ID: MRL 400-352538/3
Matrix: Water
Analysis Batch: 352538

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	2.00		mg/L		100	50 - 150
Chloride, Dissolved	2.00	2.00		mg/L		100	50 - 150

Lab Sample ID: 400-137172-9 MS
Matrix: Water
Analysis Batch: 352538

Client Sample ID: AX09794 MW-6S DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	24		10.0	31.7		mg/L		76	73 - 120

Lab Sample ID: 400-137172-9 MSD
Matrix: Water
Analysis Batch: 352538

Client Sample ID: AX09794 MW-6S DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	24		10.0	31.8		mg/L		77	73 - 120	0	8

Lab Sample ID: 400-137172-16 MS
Matrix: Water
Analysis Batch: 352538

Client Sample ID: AX09801 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.0		10.0	16.0		mg/L		90	73 - 120

Lab Sample ID: 400-137172-16 MSD
Matrix: Water
Analysis Batch: 352538

Client Sample ID: AX09801 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	7.0		10.0	15.9		mg/L		89	73 - 120	0	8

Lab Sample ID: 400-137172-22 MS
Matrix: Water
Analysis Batch: 352538

Client Sample ID: AX09807 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.2		10.0	13.7		mg/L		105	73 - 120

Lab Sample ID: 400-137172-22 MSD
Matrix: Water
Analysis Batch: 352538

Client Sample ID: AX09807 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	3.2		10.0	13.5		mg/L		104	73 - 120	1	8

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-352226/3
Matrix: Water
Analysis Batch: 352226

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/03/17 15:34	1

Lab Sample ID: LCS 400-352226/4
Matrix: Water
Analysis Batch: 352226

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: 400-137172-9 MS
Matrix: Water
Analysis Batch: 352226

Client Sample ID: AX09794 MW-6S DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.090	J	1.00	1.06		mg/L		97	75 - 125

Lab Sample ID: 400-137172-9 MSD
Matrix: Water
Analysis Batch: 352226

Client Sample ID: AX09794 MW-6S DUP
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	J	1.00	1.04		mg/L		95	75 - 125	2	4

Lab Sample ID: 400-137172-3 DU
Matrix: Water
Analysis Batch: 352226

Client Sample ID: AX09788 MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.72		0.720		mg/L		0	4

Lab Sample ID: MB 400-352236/3
Matrix: Water
Analysis Batch: 352236

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/03/17 16:56	1
Fluoride, Dissolved	<0.032		0.10	0.032	mg/L			05/03/17 16:56	1

Lab Sample ID: LCS 400-352236/4
Matrix: Water
Analysis Batch: 352236

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	4.02		mg/L		101	90 - 110
Fluoride, Dissolved	4.00	4.02		mg/L		101	90 - 110

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-137172-16 MS
Matrix: Water
Analysis Batch: 352236

Client Sample ID: AX09801 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.16		1.00	1.13		mg/L		97	75 - 125

Lab Sample ID: 400-137172-16 MSD
Matrix: Water
Analysis Batch: 352236

Client Sample ID: AX09801 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.16		1.00	1.15		mg/L		99	75 - 125	2	4

Lab Sample ID: 400-137172-22 MS
Matrix: Water
Analysis Batch: 352236

Client Sample ID: AX09807 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.11		1.00	1.08		mg/L		97	75 - 125

Lab Sample ID: 400-137172-22 MSD
Matrix: Water
Analysis Batch: 352236

Client Sample ID: AX09807 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.11		1.00	1.08		mg/L		97	75 - 125	0	4

Lab Sample ID: 400-137172-20 DU
Matrix: Water
Analysis Batch: 352236

Client Sample ID: AX09805 MW-19 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.32		0.310		mg/L		3	4
Fluoride, Dissolved	0.32		0.310		mg/L		3	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-352431/6
Matrix: Water
Analysis Batch: 352431

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			05/04/17 16:21	1

Lab Sample ID: LCS 400-352431/7
Matrix: Water
Analysis Batch: 352431

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

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

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

Lab Sample ID: MRL 400-352431/3
Matrix: Water
Analysis Batch: 352431

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	4.81	J	mg/L		96	50 - 150

Lab Sample ID: 400-137046-B-4 MS
Matrix: Water
Analysis Batch: 352431

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	12		10.0	20.3		mg/L		80	77 - 128

Lab Sample ID: 400-137046-B-4 MSD
Matrix: Water
Analysis Batch: 352431

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	12		10.0	20.1		mg/L		78	77 - 128	1	5

Lab Sample ID: MB 400-352537/6
Matrix: Water
Analysis Batch: 352537

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			05/05/17 10:40	1
Sulfate, Dissolved	<1.4		5.0	1.4	mg/L			05/05/17 10:40	1

Lab Sample ID: LCS 400-352537/7
Matrix: Water
Analysis Batch: 352537

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
Sulfate, Dissolved	15.0	14.4		mg/L		96	90 - 110

Lab Sample ID: MRL 400-352537/3
Matrix: Water
Analysis Batch: 352537

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	4.76	J	mg/L		95	50 - 150
Sulfate, Dissolved	5.00	4.76	J	mg/L		95	50 - 150

Lab Sample ID: 400-137172-9 MS
Matrix: Water
Analysis Batch: 352537

Client Sample ID: AX09794 MW-6S DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	330	F1	100	318	F1	mg/L		-8	77 - 128

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

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

Lab Sample ID: 400-137172-9 MSD
Matrix: Water
Analysis Batch: 352537

Client Sample ID: AX09794 MW-6S DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	330	F1	100	320	F1	mg/L		-6	77 - 128	1	5

Lab Sample ID: 400-137172-16 MS
Matrix: Water
Analysis Batch: 352537

Client Sample ID: AX09801 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	13		10.0	23.0		mg/L		101	77 - 128		

Lab Sample ID: 400-137172-16 MSD
Matrix: Water
Analysis Batch: 352537

Client Sample ID: AX09801 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	13		10.0	22.6		mg/L		97	77 - 128	2	5

Lab Sample ID: 400-137172-22 MS
Matrix: Water
Analysis Batch: 352537

Client Sample ID: AX09807 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	13		10.0	22.7		mg/L		100	77 - 128		

Lab Sample ID: 400-137172-22 MSD
Matrix: Water
Analysis Batch: 352537

Client Sample ID: AX09807 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	13		10.0	23.2		mg/L		105	77 - 128	2	5

Chain of Custody Record

Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Sampler: Ben Rothschild/ Jason Rouss		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		Page: Page 1 of 2	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Job #: 400-137172	
Address: 744 County Rd 87 GSC #8		TAT Requested (days):		Preservation Codes:	
City: Calera		Routine		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 Other:	
State, Zip: AL, 35040		PO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Phone: 205-664-6121(Tel)		WO #:		Total Number of containers	
Email: sgcopela@southerncco.com		Project #:		Special Instructions/Note:	
Project Name: CCR		40007143		MW-17 MW-8 MW-15 FB-2 (Field Blank) MW-21 EB-1 (Equipment Blank) MW-9 MW-5S MW-6S Dup (Sample Duplicate) MW-6D MW-7 MW-7 Diss (Dissolved Sample) MW-11	
Site: Gorgas Ash Pond (7)		SSOW#:		Other:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F.C.	SM 4500 Cl.F	SM 4500 SO4.F	Analysis Requested	Return To Client	Disposal By Lab	Archive For	Months
AX09786	4/24/17	1245	G	Water	X	N	X	X	X		<input type="checkbox"/>			
AX09787	4/24/17	1528	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09788	4/26/17	1128	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09789	4/26/17	1155	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09790	4/26/17	1434	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09791	4/26/17	1507	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09792	4/26/17	1637	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09793	4/24/17	1144	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09794	4/24/17	1144	G	Water	Y		X	X	X		<input type="checkbox"/>			
AX09795	4/24/17	1248	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09796	4/24/17	1547	G	Water	X		X	X	X		<input type="checkbox"/>			
AX09797	4/24/17	1610	G	Water	Y		X	X	X		<input type="checkbox"/>			
AX09798	4/26/17	0947	G	Water	X		X	X	X		<input type="checkbox"/>			

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: Sarah Copeland Date/Time: 04/27/2017, 1130 Company: APC

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____

Received by: *Subra K Chandel* Date/Time: *4/28/17 0913* Company: *JA*

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: *4.3°C FLD*



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: Ben Rothschild/ Anthony Goggins Lab PM: Whitmire, Chyenne R. Client Contact: Sarah Copeland E-Mail: chyenne.whitmire@testamericainc.com Phone: Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: 400-137172		Analysis Requested Due Date Requested: TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSO#: Gorgas Ash Pond (7)		Matrix (Water, Soil, Groundwater, Biotissue, Air) Matrix: Water Preservation Code: Sample Type (C=comp, G=grab): G Sample Time: 1154 Sample Date: 4/26/17		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N SM 4500 F.C. <input checked="" type="checkbox"/> X SM 4500 CLE <input checked="" type="checkbox"/> X SM 4500 SO4.E <input checked="" type="checkbox"/> X		Total Number of Containers MW-12: 1 MW-13: 1 MW-14: 1 FB-1 (Field Blank): 1 MW-2: 1 MW-19: 1 MW-19 Dup (Sample Duplicate): 1 MW-18: 1 MW-16D: 1		Special Instructions/Note: Preservation Codes: A - HCL B - NaOH N - None O - AsNaO2 D - Nitric Acid E - NaHSO4 F - MeOH R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Z - other (specify)			
Sample Identification AX09799 AX09800 AX09801 AX09802 AX09803 AX09804 AX09805 AX09806 AX09807		Sample Date 4/26/17 4/26/17 4/26/17 4/26/17 4/26/17 4/26/17 4/26/17 4/26/17		Sample Time 1154 1320 1453 1555 1100 1225 1225 1342 1516		Sample Type (C=comp, G=grab) G G G G G G G G		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N SM 4500 F.C. <input checked="" type="checkbox"/> X SM 4500 CLE <input checked="" type="checkbox"/> X SM 4500 SO4.E <input checked="" type="checkbox"/> X		Total Number of Containers MW-12: 1 MW-13: 1 MW-14: 1 FB-1 (Field Blank): 1 MW-2: 1 MW-19: 1 MW-19 Dup (Sample Duplicate): 1 MW-18: 1 MW-16D: 1		Special Instructions/Note: Preservation Codes: A - HCL B - NaOH N - None O - AsNaO2 D - Nitric Acid E - NaHSO4 F - MeOH R - Na2SO3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Z - other (specify)	
Deliverable Requested: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Empty Kit Relinquished by: Sarah Copeland Date/Time: 04/27/2017; 1130 Relinquished by: Sarah Copeland Date/Time: Relinquished by: Date/Time: Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: 4.5°C IPA										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:			



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-137172-1
SDG Number: Gorgas Ash Pond (7)

Login Number: 137172

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	4.5°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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137172-1
 SDG: Gorgas Ash Pond (7)

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	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	05-15-17
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: 400-137176-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (7)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/15/2017 6:30:22 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	28
Chronicle	29
QC Association	35
QC Sample Results	37
Chain of Custody	42
Receipt Checklists	44
Certification Summary	45

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

Job ID: 400-137176-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-137176-1

RAD

Method(s) 9320: Radium-228 Prep Batch. The detection goal of 1.00 pCi/L was not met for the following samples due to a reduced aliquot attributed to insufficient sample available for analysis: AX09768 MW-21 (400-137176-5) and (MB 160-310266/1-A). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-307. The following samples were reduced due to limited volume: AX09784 MW-18 (400-137176-21), AX09784 MW-18 (400-137176-21[DU]) and AX09785 MW-16D (400-137176-22).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-307759. The following samples were reduced due to limited volume: AX09764 MW-17 (400-137176-1), AX09765 MW-8 (400-137176-2), AX09766 MW-15 (400-137176-3), AX09767 FB-2 (400-137176-4), AX09768 MW-21 (400-137176-5), AX09769 EB-1 (400-137176-6), AX09770 MW-9 (400-137176-7), AX09771 MW-6S (400-137176-8), AX09772 MW-6S DUP (400-137176-9), AX09773 MW-6D (400-137176-10), AX09773 MW-6D (400-137176-10[DU]), AX09774 MW-7 (400-137176-11), AX09775 MW-7 DISS (400-137176-12), AX09776 MW-11 (400-137176-13), AX09777 MW-12 (400-137176-14), AX09778 MW-13 (400-137176-15), AX09779 MW-14 (400-137176-16), AX09780 FB-1 (400-137176-17), AX09781 MW-2 (400-137176-18), AX09782 MW-19 (400-137176-19) and AX09783 MW-19 DUP (400-137176-20).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-310266. 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. AX09768 MW-21 (400-137176-5)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-307552. The following samples were reduced due to limited volume: AX09784 MW-18 (400-137176-21), AX09784 MW-18 (400-137176-21[DU]) and AX09785 MW-16D (400-137176-22).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-307755. The following samples were reduced due to limited volume: AX09764 MW-17 (400-137176-1), AX09765 MW-8 (400-137176-2), AX09766 MW-15 (400-137176-3), AX09767 FB-2 (400-137176-4), AX09769 EB-1 (400-137176-6), AX09770 MW-9 (400-137176-7), AX09771 MW-6S (400-137176-8), AX09772 MW-6S DUP (400-137176-9), AX09773 MW-6D (400-137176-10), AX09773 MW-6D (400-137176-10[DU]), AX09774 MW-7 (400-137176-11), AX09775 MW-7 DISS (400-137176-12), AX09776 MW-11 (400-137176-13), AX09777 MW-12 (400-137176-14), AX09778 MW-13 (400-137176-15), AX09779 MW-14 (400-137176-16), AX09780 FB-1 (400-137176-17), AX09781 MW-2 (400-137176-18), AX09782 MW-19 (400-137176-19) and AX09783 MW-19 DUP (400-137176-20).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-310263. 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. AX09768 MW-21 (400-137176-5)

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

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
Ra226_Ra228 (D)	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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137176-1	AX09764 MW-17	Water	04/24/17 12:45	04/28/17 09:13
400-137176-2	AX09765 MW-8	Water	04/24/17 15:28	04/28/17 09:13
400-137176-3	AX09766 MW-15	Water	04/26/17 11:28	04/28/17 09:13
400-137176-4	AX09767 FB-2	Water	04/26/17 11:55	04/28/17 09:13
400-137176-5	AX09768 MW-21	Water	04/26/17 14:34	04/28/17 09:13
400-137176-6	AX09769 EB-1	Water	04/26/17 15:07	04/28/17 09:13
400-137176-7	AX09770 MW-9	Water	04/26/17 16:37	04/28/17 09:13
400-137176-8	AX09771 MW-6S	Water	04/24/17 11:44	04/28/17 09:13
400-137176-9	AX09772 MW-6S DUP	Water	04/24/17 11:44	04/28/17 09:13
400-137176-10	AX09773 MW-6D	Water	04/24/17 12:48	04/28/17 09:13
400-137176-11	AX09774 MW-7	Water	04/24/17 15:47	04/28/17 09:13
400-137176-12	AX09775 MW-7 DISS	Water	04/24/17 16:10	04/28/17 09:13
400-137176-13	AX09776 MW-11	Water	04/26/17 09:47	04/28/17 09:13
400-137176-14	AX09777 MW-12	Water	04/26/17 11:54	04/28/17 09:13
400-137176-15	AX09778 MW-13	Water	04/26/17 13:20	04/28/17 09:13
400-137176-16	AX09779 MW-14	Water	04/26/17 14:53	04/28/17 09:13
400-137176-17	AX09780 FB-1	Water	04/26/17 15:55	04/28/17 09:13
400-137176-18	AX09781 MW-2	Water	04/26/17 11:00	04/28/17 09:13
400-137176-19	AX09782 MW-19	Water	04/26/17 12:25	04/28/17 09:13
400-137176-20	AX09783 MW-19 DUP	Water	04/26/17 12:25	04/28/17 09:13
400-137176-21	AX09784 MW-18	Water	04/26/17 13:42	04/28/17 09:13
400-137176-22	AX09785 MW-16D	Water	04/26/17 15:16	04/28/17 09:13

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09764 MW-17

Lab Sample ID: 400-137176-1

Date Collected: 04/24/17 12:45

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0385	U	0.0732	0.0733	1.00	0.132	pCi/L	05/09/17 08:05	05/31/17 05:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/09/17 08:05	05/31/17 05:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0754	U	0.322	0.322	1.00	0.561	pCi/L	05/09/17 08:28	05/23/17 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/09/17 08:28	05/23/17 11:08	1
Y Carrier	83.0		40 - 110					05/09/17 08:28	05/23/17 11:08	1

Method: Ra226_Ra228 - Combined Radium-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	0.331	0.331	5.00	0.561	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09765 MW-8

Lab Sample ID: 400-137176-2

Date Collected: 04/24/17 15:28

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0151	U	0.0785	0.0785	1.00	0.153	pCi/L	05/09/17 08:05	05/31/17 05:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/09/17 08:05	05/31/17 05:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.278	U	0.331	0.332	1.00	0.546	pCi/L	05/09/17 08:28	05/23/17 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/09/17 08:28	05/23/17 11:08	1
Y Carrier	82.2		40 - 110					05/09/17 08:28	05/23/17 11:08	1

Method: Ra226_Ra228 - Combined Radium-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	0.340	0.341	5.00	0.546	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09766 MW-15

Lab Sample ID: 400-137176-3

Date Collected: 04/26/17 11:28

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199		0.115	0.116	1.00	0.148	pCi/L	05/09/17 08:05	05/31/17 05:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/09/17 08:05	05/31/17 05:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00816	U	0.299	0.299	1.00	0.532	pCi/L	05/09/17 08:28	05/23/17 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/09/17 08:28	05/23/17 11:08	1
Y Carrier	81.1		40 - 110					05/09/17 08:28	05/23/17 11:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.207	U	0.320	0.321	5.00	0.532	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09767 FB-2

Lab Sample ID: 400-137176-4

Date Collected: 04/26/17 11:55

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00500	U	0.0728	0.0728	1.00	0.152	pCi/L	05/09/17 08:05	05/31/17 11:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/09/17 08:05	05/31/17 11:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.116	U	0.287	0.287	1.00	0.494	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	84.1		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.111	U	0.296	0.296	5.00	0.494	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09768 MW-21

Lab Sample ID: 400-137176-5

Date Collected: 04/26/17 14:34

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.295		0.209	0.211	1.00	0.271	pCi/L	05/24/17 10:08	06/15/17 08:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/24/17 10:08	06/15/17 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	0.688	U G	1.13	1.13	1.00	1.89	pCi/L	05/24/17 10:14	06/01/17 14:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/24/17 10:14	06/01/17 14:38	1
Y Carrier	75.5		40 - 110					05/24/17 10:14	06/01/17 14:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.982	U	1.14	1.15	5.00	1.89	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09769 EB-1

Lab Sample ID: 400-137176-6

Date Collected: 04/26/17 15:07

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0444	U	0.0444	0.0446	1.00	0.126	pCi/L	05/09/17 08:05	05/31/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/09/17 08:05	05/31/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0151	U	0.257	0.257	1.00	0.462	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	81.1		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0596	U	0.260	0.260	5.00	0.462	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09770 MW-9

Lab Sample ID: 400-137176-7

Date Collected: 04/26/17 16:37

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0950	U	0.0808	0.0812	1.00	0.117	pCi/L	05/09/17 08:05	05/31/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/09/17 08:05	05/31/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0647	U	0.257	0.257	1.00	0.451	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	85.2		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.160	U	0.269	0.270	5.00	0.451	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09771 MW-6S

Lab Sample ID: 400-137176-8

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220		0.111	0.113	1.00	0.130	pCi/L	05/09/17 08:05	05/31/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/09/17 08:05	05/31/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.216	U	0.300	0.300	1.00	0.500	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	81.1		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.436	U	0.319	0.321	5.00	0.500	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09772 MW-6S DUP

Lab Sample ID: 400-137176-9

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.209		0.109	0.110	1.00	0.131	pCi/L	05/09/17 08:05	05/31/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/09/17 08:05	05/31/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0512	U	0.247	0.247	1.00	0.435	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	83.7		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.260	U	0.270	0.270	5.00	0.435	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09773 MW-6D

Lab Sample ID: 400-137176-10

Date Collected: 04/24/17 12:48

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.204		0.107	0.109	1.00	0.127	pCi/L	05/09/17 08:05	05/31/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/09/17 08:05	05/31/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.288	U	0.288	0.289	1.00	0.467	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	82.2		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.492		0.307	0.309	5.00	0.467	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09774 MW-7

Lab Sample ID: 400-137176-11

Date Collected: 04/24/17 15:47

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0748	U	0.0893	0.0896	1.00	0.146	pCi/L	05/09/17 08:05	05/31/17 05:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					05/09/17 08:05	05/31/17 05:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.597		0.329	0.334	1.00	0.489	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	81.5		40 - 110					05/09/17 08:28	05/23/17 11:09	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.672		0.341	0.346	5.00	0.489	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09775 MW-7 DISS

Lab Sample ID: 400-137176-12

Date Collected: 04/24/17 16:10

Matrix: Water

Date Received: 04/28/17 09:13

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0840	U	0.0763	0.0767	1.00	0.112	pCi/L	05/09/17 08:05	05/31/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/09/17 08:05	05/31/17 05:55	1

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0373	U	0.262	0.262	1.00	0.465	pCi/L	05/09/17 08:28	05/23/17 11:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/09/17 08:28	05/23/17 11:09	1
Y Carrier	86.4		40 - 110					05/09/17 08:28	05/23/17 11:09	1

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.121	U	0.273	0.273	5.00	0.465	pCi/L		06/12/17 16:20	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09776 MW-11

Lab Sample ID: 400-137176-13

Date Collected: 04/26/17 09:47

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.142	U	0.106	0.106	1.00	0.151	pCi/L	05/09/17 08:05	05/31/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/09/17 08:05	05/31/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.116	U	0.266	0.266	1.00	0.460	pCi/L	05/09/17 08:28	05/23/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/09/17 08:28	05/23/17 11:10	1
Y Carrier	83.0		40 - 110					05/09/17 08:28	05/23/17 11:10	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	0.258	U	0.286	0.287	5.00	0.460	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09777 MW-12

Lab Sample ID: 400-137176-14

Date Collected: 04/26/17 11:54

Matrix: Water

Date Received: 04/28/17 09:13

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	U	0.0929	0.0934	1.00	0.138	pCi/L	05/09/17 08:05	05/31/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					05/09/17 08:05	05/31/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.276	U	0.285	0.286	1.00	0.464	pCi/L	05/09/17 08:28	05/23/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					05/09/17 08:28	05/23/17 11:10	1
Y Carrier	81.5		40 - 110					05/09/17 08:28	05/23/17 11:10	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	0.384	U	0.300	0.301	5.00	0.464	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09778 MW-13

Lab Sample ID: 400-137176-15

Date Collected: 04/26/17 13:20

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0578	U	0.0781	0.0783	1.00	0.131	pCi/L	05/09/17 08:05	05/31/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/09/17 08:05	05/31/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0184	U	0.279	0.279	1.00	0.496	pCi/L	05/09/17 08:28	05/23/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/09/17 08:28	05/23/17 11:10	1
Y Carrier	82.6		40 - 110					05/09/17 08:28	05/23/17 11:10	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	0.0762	U	0.290	0.290	5.00	0.496	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09779 MW-14

Lab Sample ID: 400-137176-16

Date Collected: 04/26/17 14:53

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.124	U	0.0961	0.0968	1.00	0.137	pCi/L	05/09/17 08:05	05/31/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/09/17 08:05	05/31/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.317	U	0.272	0.273	1.00	0.434	pCi/L	05/09/17 08:28	05/23/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/09/17 08:28	05/23/17 11:10	1
Y Carrier	97.2		40 - 110					05/09/17 08:28	05/23/17 11:10	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	0.442		0.288	0.290	5.00	0.434	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09780 FB-1

Lab Sample ID: 400-137176-17

Date Collected: 04/26/17 15:55

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0399	U	0.0808	0.0809	1.00	0.145	pCi/L	05/09/17 08:05	05/31/17 05:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/09/17 08:05	05/31/17 05:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.245	U	0.278	0.279	1.00	0.457	pCi/L	05/09/17 08:28	05/23/17 11:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/09/17 08:28	05/23/17 11:10	1
Y Carrier	83.7		40 - 110					05/09/17 08:28	05/23/17 11:10	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	0.285	U	0.289	0.290	5.00	0.457	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09781 MW-2

Lab Sample ID: 400-137176-18

Date Collected: 04/26/17 11:00

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00956	U	0.0725	0.0726	1.00	0.152	pCi/L	05/09/17 08:05	05/31/17 05:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					05/09/17 08:05	05/31/17 05:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.407	U	0.275	0.278	1.00	0.417	pCi/L	05/09/17 08:28	05/23/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					05/09/17 08:28	05/23/17 11:11	1
Y Carrier	80.4		40 - 110					05/09/17 08:28	05/23/17 11:11	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	0.397	U	0.284	0.287	5.00	0.417	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09782 MW-19

Lab Sample ID: 400-137176-19

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129	U	0.0964	0.0971	1.00	0.138	pCi/L	05/09/17 08:05	05/31/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					05/09/17 08:05	05/31/17 05:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U	0.256	0.256	1.00	0.442	pCi/L	05/09/17 08:28	05/23/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					05/09/17 08:28	05/23/17 11:11	1
Y Carrier	84.1		40 - 110					05/09/17 08:28	05/23/17 11:11	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	0.238	U	0.273	0.274	5.00	0.442	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09783 MW-19 DUP

Lab Sample ID: 400-137176-20

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117	U	0.0920	0.0926	1.00	0.133	pCi/L	05/09/17 08:05	05/31/17 05:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/09/17 08:05	05/31/17 05:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.364	U	0.306	0.308	1.00	0.487	pCi/L	05/09/17 08:28	05/23/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/09/17 08:28	05/23/17 11:11	1
Y Carrier	83.4		40 - 110					05/09/17 08:28	05/23/17 11:11	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	0.481	U	0.319	0.321	5.00	0.487	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09784 MW-18

Lab Sample ID: 400-137176-21

Date Collected: 04/26/17 13:42

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.123		0.0872	0.0879	1.00	0.119	pCi/L	05/08/17 08:09	05/30/17 15:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					05/08/17 08:09	05/30/17 15:50	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.264	U	0.273	0.274	1.00	0.444	pCi/L	05/08/17 08:42	05/22/17 14:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					05/08/17 08:42	05/22/17 14:10	1
Y Carrier	89.3		40 - 110					05/08/17 08:42	05/22/17 14:10	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	0.388	U	0.286	0.288	5.00	0.444	pCi/L		06/15/17 13:51	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09785 MW-16D

Lab Sample ID: 400-137176-22

Date Collected: 04/26/17 15:16

Matrix: Water

Date Received: 04/28/17 09:13

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0133	U	0.0393	0.0393	1.00	0.0815	pCi/L	05/08/17 08:09	05/30/17 15:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					05/08/17 08:09	05/30/17 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	0.00417	U	0.438	0.438	1.00	0.783	pCi/L	05/08/17 08:42	05/22/17 17:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					05/08/17 08:42	05/22/17 17:57	1
Y Carrier	84.5		40 - 110					05/08/17 08:42	05/22/17 17:57	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	0.0175	U	0.440	0.440	5.00	0.783	pCi/L		06/15/17 13:51	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

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.
α	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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09764 MW-17

Lab Sample ID: 400-137176-1

Date Collected: 04/24/17 12:45

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:53	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09765 MW-8

Lab Sample ID: 400-137176-2

Date Collected: 04/24/17 15:28

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:53	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09766 MW-15

Lab Sample ID: 400-137176-3

Date Collected: 04/26/17 11:28

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:53	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09767 FB-2

Lab Sample ID: 400-137176-4

Date Collected: 04/26/17 11:55

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 11:13	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09768 MW-21

Lab Sample ID: 400-137176-5

Date Collected: 04/26/17 14:34

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310263	05/24/17 10:08	LDE	TAL SL
Total/NA	Analysis	9315		1	313462	06/15/17 08:36	RTM	TAL SL
Total/NA	Prep	PrecSep_0			310266	05/24/17 10:14	LDE	TAL SL
Total/NA	Analysis	9320		1	311426	06/01/17 14:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09769 EB-1

Lab Sample ID: 400-137176-6

Date Collected: 04/26/17 15:07

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09770 MW-9

Lab Sample ID: 400-137176-7

Date Collected: 04/26/17 16:37

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09771 MW-6S

Lab Sample ID: 400-137176-8

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09772 MW-6S DUP

Lab Sample ID: 400-137176-9

Date Collected: 04/24/17 11:44

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09773 MW-6D

Lab Sample ID: 400-137176-10

Date Collected: 04/24/17 12:48

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09774 MW-7

Lab Sample ID: 400-137176-11

Date Collected: 04/24/17 15:47

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:54	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09775 MW-7 DISS

Lab Sample ID: 400-137176-12

Date Collected: 04/24/17 16:10

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Dissolved	Analysis	9315		1	311213	05/31/17 05:55	ALD	TAL SL
Dissolved	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Dissolved	Analysis	9320		1	309874	05/23/17 11:09	RTM	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	313076	06/12/17 16:20	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09776 MW-11

Lab Sample ID: 400-137176-13

Date Collected: 04/26/17 09:47

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09777 MW-12

Lab Sample ID: 400-137176-14

Date Collected: 04/26/17 11:54

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09778 MW-13

Lab Sample ID: 400-137176-15

Date Collected: 04/26/17 13:20

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09779 MW-14

Lab Sample ID: 400-137176-16

Date Collected: 04/26/17 14:53

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09780 FB-1

Lab Sample ID: 400-137176-17

Date Collected: 04/26/17 15:55

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311213	05/31/17 05:55	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309874	05/23/17 11:10	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09781 MW-2

Lab Sample ID: 400-137176-18

Date Collected: 04/26/17 11:00

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311214	05/31/17 05:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309975	05/23/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09782 MW-19

Lab Sample ID: 400-137176-19

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311214	05/31/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309975	05/23/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09783 MW-19 DUP

Lab Sample ID: 400-137176-20

Date Collected: 04/26/17 12:25

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307755	05/09/17 08:05	LDE	TAL SL
Total/NA	Analysis	9315		1	311214	05/31/17 05:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			307759	05/09/17 08:28	LDE	TAL SL
Total/NA	Analysis	9320		1	309975	05/23/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

Client Sample ID: AX09784 MW-18

Lab Sample ID: 400-137176-21

Date Collected: 04/26/17 13:42

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307552	05/08/17 08:09	LDE	TAL SL
Total/NA	Analysis	9315		1	311128	05/30/17 15:50	RTM	TAL SL
Total/NA	Prep	PrecSep_0			307645	05/08/17 08:42	LDE	TAL SL
Total/NA	Analysis	9320		1	309767	05/22/17 14:10	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	RTM	TAL SL

Client Sample ID: AX09785 MW-16D

Lab Sample ID: 400-137176-22

Date Collected: 04/26/17 15:16

Matrix: Water

Date Received: 04/28/17 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			307552	05/08/17 08:09	LDE	TAL SL
Total/NA	Analysis	9315		1	311129	05/30/17 15:51	RTM	TAL SL
Total/NA	Prep	PrecSep_0			307645	05/08/17 08:42	LDE	TAL SL
Total/NA	Analysis	9320		1	309767	05/22/17 17:57	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313651	06/15/17 13:51	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Rad

Prep Batch: 307552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-21	AX09784 MW-18	Total/NA	Water	PrecSep-21	
400-137176-22	AX09785 MW-16D	Total/NA	Water	PrecSep-21	
MB 160-307552/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-307552/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137176-21 DU	AX09784 MW-18	Total/NA	Water	PrecSep-21	

Prep Batch: 307645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-21	AX09784 MW-18	Total/NA	Water	PrecSep_0	
400-137176-22	AX09785 MW-16D	Total/NA	Water	PrecSep_0	
MB 160-307645/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-307645/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137176-21 DU	AX09784 MW-18	Total/NA	Water	PrecSep_0	

Prep Batch: 307755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-1	AX09764 MW-17	Total/NA	Water	PrecSep-21	
400-137176-2	AX09765 MW-8	Total/NA	Water	PrecSep-21	
400-137176-3	AX09766 MW-15	Total/NA	Water	PrecSep-21	
400-137176-4	AX09767 FB-2	Total/NA	Water	PrecSep-21	
400-137176-6	AX09769 EB-1	Total/NA	Water	PrecSep-21	
400-137176-7	AX09770 MW-9	Total/NA	Water	PrecSep-21	
400-137176-8	AX09771 MW-6S	Total/NA	Water	PrecSep-21	
400-137176-9	AX09772 MW-6S DUP	Total/NA	Water	PrecSep-21	
400-137176-10	AX09773 MW-6D	Total/NA	Water	PrecSep-21	
400-137176-11	AX09774 MW-7	Total/NA	Water	PrecSep-21	
400-137176-12	AX09775 MW-7 DISS	Dissolved	Water	PrecSep-21	
400-137176-13	AX09776 MW-11	Total/NA	Water	PrecSep-21	
400-137176-14	AX09777 MW-12	Total/NA	Water	PrecSep-21	
400-137176-15	AX09778 MW-13	Total/NA	Water	PrecSep-21	
400-137176-16	AX09779 MW-14	Total/NA	Water	PrecSep-21	
400-137176-17	AX09780 FB-1	Total/NA	Water	PrecSep-21	
400-137176-18	AX09781 MW-2	Total/NA	Water	PrecSep-21	
400-137176-19	AX09782 MW-19	Total/NA	Water	PrecSep-21	
400-137176-20	AX09783 MW-19 DUP	Total/NA	Water	PrecSep-21	
MB 160-307755/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-307755/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137176-10 DU	AX09773 MW-6D	Total/NA	Water	PrecSep-21	

Prep Batch: 307759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-1	AX09764 MW-17	Total/NA	Water	PrecSep_0	
400-137176-2	AX09765 MW-8	Total/NA	Water	PrecSep_0	
400-137176-3	AX09766 MW-15	Total/NA	Water	PrecSep_0	
400-137176-4	AX09767 FB-2	Total/NA	Water	PrecSep_0	
400-137176-6	AX09769 EB-1	Total/NA	Water	PrecSep_0	
400-137176-7	AX09770 MW-9	Total/NA	Water	PrecSep_0	
400-137176-8	AX09771 MW-6S	Total/NA	Water	PrecSep_0	
400-137176-9	AX09772 MW-6S DUP	Total/NA	Water	PrecSep_0	
400-137176-10	AX09773 MW-6D	Total/NA	Water	PrecSep_0	
400-137176-11	AX09774 MW-7	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Rad (Continued)

Prep Batch: 307759 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-12	AX09775 MW-7 DISS	Dissolved	Water	PrecSep_0	
400-137176-13	AX09776 MW-11	Total/NA	Water	PrecSep_0	
400-137176-14	AX09777 MW-12	Total/NA	Water	PrecSep_0	
400-137176-15	AX09778 MW-13	Total/NA	Water	PrecSep_0	
400-137176-16	AX09779 MW-14	Total/NA	Water	PrecSep_0	
400-137176-17	AX09780 FB-1	Total/NA	Water	PrecSep_0	
400-137176-18	AX09781 MW-2	Total/NA	Water	PrecSep_0	
400-137176-19	AX09782 MW-19	Total/NA	Water	PrecSep_0	
400-137176-20	AX09783 MW-19 DUP	Total/NA	Water	PrecSep_0	
MB 160-307759/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-307759/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137176-10 DU	AX09773 MW-6D	Total/NA	Water	PrecSep_0	

Prep Batch: 310263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-5	AX09768 MW-21	Total/NA	Water	PrecSep-21	
MB 160-310263/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-310263/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-310263/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 310266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137176-5	AX09768 MW-21	Total/NA	Water	PrecSep_0	
MB 160-310266/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-310266/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-310266/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-307552/1-A
Matrix: Water
Analysis Batch: 311129

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307552

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01517	U	0.0450	0.0450	1.00	0.0871	pCi/L	05/08/17 08:09	05/30/17 15:07	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	95.6					05/08/17 08:09	05/30/17 15:07	1		

Lab Sample ID: LCS 160-307552/2-A
Matrix: Water
Analysis Batch: 311129

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307552

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	11.76		1.21	1.00	0.0836	pCi/L	103	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	96.2					05/08/17 08:09	05/30/17 15:07	1	

Lab Sample ID: 400-137176-21 DU
Matrix: Water
Analysis Batch: 311129

Client Sample ID: AX09784 MW-18
Prep Type: Total/NA
Prep Batch: 307552

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.123		0.08200		0.0636	1.00	0.0776	pCi/L	0.27	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	96.5					05/09/17 08:05	05/31/17 05:53	1		

Lab Sample ID: MB 160-307755/1-A
Matrix: Water
Analysis Batch: 311213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307755

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.05135	U	0.0867	0.0868	1.00	0.152	pCi/L	05/09/17 08:05	05/31/17 05:53	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	90.9					05/09/17 08:05	05/31/17 05:53	1		

Lab Sample ID: LCS 160-307755/2-A
Matrix: Water
Analysis Batch: 311213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307755

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	13.07		1.38	1.00	0.117	pCi/L	86	68 - 137

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

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

Lab Sample ID: LCS 160-307755/2-A
Matrix: Water
Analysis Batch: 311213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307755

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	95.6		40 - 110

Lab Sample ID: 400-137176-10 DU
Matrix: Water
Analysis Batch: 311213

Client Sample ID: AX09773 MW-6D
Prep Type: Total/NA
Prep Batch: 307755

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.204		0.1311		0.0917	1.00	0.124	pCi/L	0.36	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	103		40 - 110

Lab Sample ID: MB 160-310263/1-A
Matrix: Water
Analysis Batch: 313462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310263

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.1270	U	0.149	0.150	1.00	0.379	pCi/L	05/24/17 10:08	06/15/17 08:36	1

	MB	MB	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	98.2		40 - 110

	Prepared	Analyzed	Dil Fac
Ba Carrier	05/24/17 10:08	06/15/17 08:36	1

Lab Sample ID: LCS 160-310263/2-A
Matrix: Water
Analysis Batch: 313462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310263

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	45.4	42.37		4.33	1.00	0.248	pCi/L	93	68 - 137

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	99.7		40 - 110

Lab Sample ID: LCSD 160-310263/3-A
Matrix: Water
Analysis Batch: 313462

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 310263

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	45.4	42.13		4.32	1.00	0.291	pCi/L	93	68 - 137	0.03	1

	LCSD	LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.1		40 - 110

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-307645/1-A
Matrix: Water
Analysis Batch: 309767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307645

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3292	U	0.266	0.268	1.00	0.425	pCi/L	05/08/17 08:42	05/22/17 14:12	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	95.6		40 - 110		05/08/17 08:42	05/22/17 14:12	1			
Y Carrier	86.0		40 - 110		05/08/17 08:42	05/22/17 14:12	1			

Lab Sample ID: LCS 160-307645/2-A
Matrix: Water
Analysis Batch: 309767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307645

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-228	13.4	15.15		1.61	1.00	0.392	pCi/L	113	56 - 140
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Ba Carrier	96.2		40 - 110						
Y Carrier	89.3		40 - 110						

Lab Sample ID: 400-137176-21 DU
Matrix: Water
Analysis Batch: 309767

Client Sample ID: AX09784 MW-18
Prep Type: Total/NA
Prep Batch: 307645

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-228	0.264	U	0.6938		0.403	1.00	0.611	pCi/L	0.63	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	96.5		40 - 110							
Y Carrier	86.4		40 - 110							

Lab Sample ID: MB 160-307759/1-A
Matrix: Water
Analysis Batch: 309874

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307759

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2439	U	0.338	0.339	1.00	0.565	pCi/L	05/09/17 08:28	05/23/17 11:08	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	90.9		40 - 110		05/09/17 08:28	05/23/17 11:08	1			
Y Carrier	79.3		40 - 110		05/09/17 08:28	05/23/17 11:08	1			

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-307759/2-A
Matrix: Water
Analysis Batch: 309874

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307759

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	17.9	20.82		2.22	1.00	0.513	pCi/L	116	56 - 140	
Carrier	%Yield	LCS Qualifier	Limits							
Ba Carrier	95.6		40 - 110							
Y Carrier	81.9		40 - 110							

Lab Sample ID: 400-137176-10 DU
Matrix: Water
Analysis Batch: 309874

Client Sample ID: AX09773 MW-6D
Prep Type: Total/NA
Prep Batch: 307759

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.288	U	0.1574	U	0.234	1.00	0.394	pCi/L	0.25	1
Carrier	%Yield	DU Qualifier	Limits							
Ba Carrier	103		40 - 110							
Y Carrier	80.0		40 - 110							

Lab Sample ID: MB 160-310266/1-A
Matrix: Water
Analysis Batch: 311425

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310266

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1692	U G	0.790	0.790	1.00	1.46	pCi/L	05/24/17 10:14	06/01/17 14:37	1
Carrier	%Yield	MB Qualifier	Limits							
Ba Carrier	98.2		40 - 110							
Y Carrier	81.5		40 - 110							
								Prepared	Analyzed	Dil Fac
								05/24/17 10:14	06/01/17 14:37	1
								05/24/17 10:14	06/01/17 14:37	1

Lab Sample ID: LCS 160-310266/2-A
Matrix: Water
Analysis Batch: 311426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310266

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	53.5	52.37		5.65	1.00	1.42	pCi/L	98	56 - 140
Carrier	%Yield	LCS Qualifier	Limits						
Ba Carrier	99.7		40 - 110						
Y Carrier	87.1		40 - 110						

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-310266/3-A
Matrix: Water
Analysis Batch: 311426

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 310266

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	53.5	51.36		5.58	1.00	1.57	pCi/L	96	56 - 140	0.09	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	97.1		40 - 110
Y Carrier	87.5		40 - 110

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

Lab Sample ID: 400-137176-10 DU
Matrix: Water
Analysis Batch: 313651

Client Sample ID: AX09773 MW-6D
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	0.492		0.2885	U	0.252	5.00	0.394	pCi/L	0.36	

Lab Sample ID: 400-137176-21 DU
Matrix: Water
Analysis Batch: 313651

Client Sample ID: AX09784 MW-18
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	0.388	U	0.7758		0.408	5.00	0.611	pCi/L	0.56	

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: Ben Rothschild/ Jason Rouss		Lab PM: Whitmire, Cheyenne R	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87 GSC #8		Carrier Tracking No(s):	
City: Calera		State, Zip: AL, 35040		COC No: 400-56525-24537.1	
Phone: 205-664-6121(Tel)		PO #:		Page 1 of 2	
Email: sgcopelia@southernco.com		WO #:		Job #: 400-157176	
Project Name: CCR		Project #: 40007143		Preservation Codes: 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 X - EDTA Y - EDA Z - other (specify) Other:	
Site: Gorgas Ash Pond (7)		SSOW#:		Total Number of Containers	
Due Date Requested:		TAT Requested (days):		Analysis Requested	
Routine		Sample Date		Sample Time	
Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Type (C=Comp, G=grab)		Matrix (Water, Solid, Over-satell)		Preservation Code:	
Sample Identification		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
AX09764		4/24/17		1245	
AX09765		4/24/17		1528	
AX09766		4/26/17		1128	
AX09767		4/26/17		1155	
AX09768		4/26/17		1434	
AX09769		4/26/17		1507	
AX09770		4/26/17		1637	
AX09771		4/24/17		1144	
AX09772		4/24/17		1144	
AX09773		4/24/17		1248	
AX09774		4/24/17		1547	
Special Instructions/Note:		MW-17		1	
		MW-8		1	
		MW-15		1	
		FB-2 (Field Blank)		1	
		MW-21		1	
		EB-1 (Equipment Blank)		1	
		MW-9		1	
		MW-6S		1	
		MW-6S Dup (Sample Duplicate)		1	
		MW-6D		3	
		MW-7		1	
Possible Hazard Identification		Return To Client		Archive For	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		Months	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Sarah Copeland		Date/Time: 04/27/2017, 1130		Company: APC	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		1.3°C IRT MAC 4/28/17	



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: Ben Rothschild/ Anthony Goggins		Lab PM: Whitmire, Chelyenne R		Carrier Tracking No(s):	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56625-24537.1	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Page: Page 2 of 2	
Address: 744 County Rd 87 GSC #8		TAT Requested (days):		Routine		Job #: 400-137176	
City: Calera		PO #:		Field Filtered Sample (Yes or No)		Preservation Codes:	
State, Zip: AL, 35040		WO #:		Form MS/MSD (Yes or No)		A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Phone: 205-664-6121(Tel)		Project #:		Field Filled Sample (Yes or No)		Other:	
Email: sgcopele@southerncco.com		40007143		D		Total Number of containers	
Project Name: CCR		SSOW#:		9315_Ra226, 9320_Ra228, Ra226Ra228_GFP		MW-7 Diss (Dissolved Sample)	
Site: Gorgas Ash Pond (7)		Sample Date		Sample Time		MW-11	
Sample Identification		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastabil, BT=tissue, A=air)		MW-12	
AX09775		G		Water		MW-13	
AX09776		G		Water		MW-14	
AX09777		G		Water		FB-1 (Field Blank)	
AX09778		G		Water		MW-2	
AX09779		G		Water		MW-19	
AX09780		G		Water		MW-19 Dup (Sample Duplicate)	
AX09781		G		Water		MW-18	
AX09782		G		Water		MW-16D	
AX09783		G		Water			
AX09784		G		Water			
AX09785		G		Water			
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Deliverable Requested: I, II, III, IV, Other (specify)				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/Note:	
Empty Kit Relinquished by:		Date:		Time:		Special Instructions/QC Requirements:	
Relinquished by: Sarah Copeland		Date/Time: 04/27/2017: 1130		Company: APC		Method of Shipment:	
Relinquished by:		Date/Time:		Company:		Date/Time: 4/28/2017 9:13	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Company: <i>TK</i>	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-137176-1
SDG Number: Gorgas Ash Pond (7)

Login Number: 137176

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
 SDG: Gorgas Ash Pond (7)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-137176-1
SDG: Gorgas Ash Pond (7)

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 Pensacola



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 04/27/2017 08:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Gorgas Ash Pond"/>
Analysis Requested	<input type="text" value="Bottle 1 (1L): Radiological"/>		
Comments	<input type="text" value="Radium Duplicate collected at MW-18
There is no temperature preservation requirement for Radium."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	04/26/2017	11:00	1	Groundwater		AX09781
MW-19	04/26/2017	12:25	1	Groundwater		AX09782
MW-19DUP	04/26/2017	12:25	1	Sample Duplicate		AX09783
MW-18	04/26/2017	13:42	3	Groundwater		AX09784
MW-16D	04/26/2017	15:16	1	Groundwater		AX09785

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.04.27 08:13:02 -05'00'</small>	04/27/2017 08:13

SmarTroll ID <input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID <input type="text" value="3901-20009-2-1"/>	
Cooler Temp <input type="text" value="NA"/>	
Thermometer ID <input type="text" value="NA"/>	
pH Strip ID <input type="text" value="5521-28268-20-12"/>	

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1104
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Anne Ryals
maryals@southernco.com
(205) 664-6032

The following data has been reviewed and approved by:

Quality Control:

Supervision:

Case Narrative



Anions

Gorgas Ash Pond

WMWGORAP_1104

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the case narrative provided by Test America for these samples:

Job Narrative
400-139172-1
General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike duplicate (MSD) recovery for analytical batch 357700 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) precision for analytical batch 357700 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 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AX13074 MW-18 (400-139172-1), AX13077 MW-2 (400-139172-4), AX13078 MW-6D (400-139172-5), AX13079 MW-6S (400-139172-6), AX13080 MW-7 (400-139172-7) and AX13082 MW-9 (400-139172-9). Elevated reporting limits (RLs) are provided.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1104

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
AX13074	20170613AB	WMWGORAP_1104
AX13075	20170613AB	WMWGORAP_1104
AX13076	20170613AB	WMWGORAP_1104
AX13077	20170613AB	WMWGORAP_1104
AX13078	20170613AB	WMWGORAP_1104
AX13079	20170613AB	WMWGORAP_1104
AX13080	20170613AB	WMWGORAP_1104
AX13081	20170613AB	WMWGORAP_1104
AX13082	20170613AB	WMWGORAP_1104
AX13083	20170613AB	WMWGORAP_1104
AX13084	20170613AC	WMWGORAP_1104
AX13228	20170614	WMWGORAP_1104
AX13229	20170614	WMWGORAP_1104
AX13230	20170614	WMWGORAP_1104
AX13231	20170614	WMWGORAP_1104
AX13232	20170614	WMWGORAP_1104
AX13233	20170614	WMWGORAP_1104
AX13234	20170614	WMWGORAP_1104
AX13235	20170614	WMWGORAP_1104
AX13236	20170614	WMWGORAP_1104
AX13237	20170614	WMWGORAP_1104

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes. An additional rinse was added between samples monitoring Li due to possible matrix issues.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.

- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.



7. All samples were analyzed at a x2 dilution to compensate for any matrix effects. The following samples were run at a x10 dilution due to final result exceeding the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX13074	Calcium	X10
AX13082	Calcium	X10

8. The raw data results include results corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP_1104

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX13074	596567	WMWGORAP_1104
AX13075	596567	WMWGORAP_1104
AX13076	596567	WMWGORAP_1104
AX13077	596567	WMWGORAP_1104
AX13078	596567	WMWGORAP_1104
AX13079	596567	WMWGORAP_1104
AX13080	596567	WMWGORAP_1104
AX13081	596567	WMWGORAP_1104
AX13082	596567	WMWGORAP_1104
AX13083	596567	WMWGORAP_1104
AX13084	596568	WMWGORAP_1104
AX13228	596568	WMWGORAP_1104
AX13229	596568	WMWGORAP_1104
AX13230	596568	WMWGORAP_1104
AX13231	596568	WMWGORAP_1104
AX13232	596568	WMWGORAP_1104
AX13233	596568	WMWGORAP_1104
AX13234	596568	WMWGORAP_1104
AX13235	596568	WMWGORAP_1104
AX13236	596568	WMWGORAP_1104
AX13237	596569	WMWGORAP_1104

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP_1104

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX13074	596410	WMWGORAP_1104
AX13075	596410	WMWGORAP_1104
AX13076	596410	WMWGORAP_1104
AX13077	596410	WMWGORAP_1104
AX13078	596410	WMWGORAP_1104
AX13079	596410	WMWGORAP_1104
AX13080	596410	WMWGORAP_1104
AX13081	596410	WMWGORAP_1104
AX13082	596410	WMWGORAP_1104
AX13083	596410	WMWGORAP_1104
AX13084	596411	WMWGORAP_1104
AX13228	596861	WMWGORAP_1104
AX13229	596861	WMWGORAP_1104
AX13230	596861	WMWGORAP_1104
AX13231	596861	WMWGORAP_1104
AX13232	596861	WMWGORAP_1104
AX13233	596861	WMWGORAP_1104
AX13234	596861	WMWGORAP_1104
AX13235	596861	WMWGORAP_1104
AX13236	596861	WMWGORAP_1104
AX13237	596861	WMWGORAP_1104

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.



- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included.



TDS

Gorgas Ash Pond

WMWGORAP_1104

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX13074	596476	WMWGORAP_1104
AX13075	596476	WMWGORAP_1104
AX13076	596476	WMWGORAP_1104
AX13077	596476	WMWGORAP_1104
AX13078	596476	WMWGORAP_1104
AX13079	596477	WMWGORAP_1104
AX13080	597505	WMWGORAP_1104
AX13081	597505	WMWGORAP_1104
AX13082	597505	WMWGORAP_1104
AX13083	597505	WMWGORAP_1104
AX13084	597505	WMWGORAP_1104
AX13228	596500	WMWGORAP_1104
AX13229	596500	WMWGORAP_1104
AX13230	596501	WMWGORAP_1104
AX13231	596501	WMWGORAP_1104
AX13232	596501	WMWGORAP_1104
AX13233	597505	WMWGORAP_1104
AX13234	597505	WMWGORAP_1104
AX13235	597505	WMWGORAP_1104
AX13236	597505	WMWGORAP_1104
AX13237	597505	WMWGORAP_1104

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met. For batches 596476 and 596477, it was discovered during the final weighing that the beaker had been chipped after sample was dried. The chip was placed into the beaker and weighing was continued. The blank then passed criteria for the next two consecutive weights.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of samples AX13084 and AX13232 which did not meet the 2.5mg residue requirement.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX13074

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	0.0673	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.0452	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	1.73	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7		10	1	5	159	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	0.262	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.0384	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/13/2017	SM 2540C		1		50	1170	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	36	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.29	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		25	35.0	130	670	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX13074

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046		93.8	70 to 130	0.535	20
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23		103	70 to 130	2.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115		105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115		92.1	70 to 130	7.22	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115		89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115		97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115		103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115		94.8	70 to 130	5.87	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15		98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115		89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115		107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115		107	70 to 130	1.73	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115		79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75		92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115		100	70 to 130	5.08	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX13074

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Limit
AX13078	Solids, Dissolved	mg/L	10.0	25				303	51.0	40 to 60			1.30 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report
 Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX13075

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.330	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	J 0.0212	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	43.1	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	J 0.0311	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00624	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/13/2017	SM 2540C		1		25	287	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	5.5	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.31	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	5.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX13075

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046		93.8	70 to 130	0.535	20
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23		103	70 to 130	2.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115		105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115		92.1	70 to 130	7.22	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115		79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75		92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115		100	70 to 130	5.08	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15		98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115		89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115		107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115		107	70 to 130	1.73	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115		89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115		97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115		103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115		94.8	70 to 130	5.87	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX13075

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13078	Solids, Dissolved	mg/L	10.0	25				303	51.0	40 to 60			1.30	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: AX13076

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.331	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	43.6	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	J 0.0308	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00586	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/13/2017	SM 2540C		1		25	292	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	5.2	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.31	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	5.1	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: AX13076

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046		93.8	70 to 130	0.535	20
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23		103	70 to 130	2.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115		105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115		92.1	70 to 130	7.22	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115		89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115		97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115		103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115		94.8	70 to 130	5.87	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15		98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115		89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115		107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115		107	70 to 130	1.73	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115		79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75		92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115		100	70 to 130	5.08	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-19 DUP

Laboratory ID Number: AX13076

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13078	Solids, Dissolved	mg/L	10.0	25			303	51.0	40 to 60	1.30	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX13077

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.0711	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	J 0.0805	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	0.569	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	J 0.0491	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00489	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/13/2017	SM 2540C		1		25	404	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	9.6	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	1.3	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		3	4.20	15	37	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX13077

Sample	Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23	103	70 to 130	2.22	20	
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046	93.8	70 to 130	0.535	20	
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115	92.1	70 to 130	7.22	20	
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115	105	70 to 130	4.11	20	
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115	79.9	70 to 130	6.72	20	
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75	92.8	70 to 130	0.240	20	
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115	100	70 to 130	5.08	20	
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115	89.3	70 to 130	5.46	20	
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115	97.7	70 to 130	6.14	20	
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115	103	70 to 130	5.64	20	
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115	94.8	70 to 130	5.87	20	
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15	98.3	70 to 130	2.98	20	
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115	89.8	70 to 130	6.12	20	
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115	107	70 to 130	5.67	20	
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115	107	70 to 130	1.73	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX13077

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Limit
AX13078	Solids, Dissolved	mg/L	10.0	25				303	51.0	40 to 60			1.30 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX13078

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	0.0778	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.611	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	1.11	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	53.9	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	0.259	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00545	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/13/2017	SM 2540C		1		25	311	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	4.7	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.12	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		3	4.20	15	63	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX13078

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit		
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23	103	70 to 130	2.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115	105	70 to 130	4.11	20
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046	93.8	70 to 130	0.535	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115	92.1	70 to 130	7.22	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115	89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115	97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115	103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115	94.8	70 to 130	5.87	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15	98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115	89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115	107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115	107	70 to 130	1.73	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115	79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75	92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115	100	70 to 130	5.08	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX13078

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX13078	Solids, Dissolved	mg/L	10.0	25			303	51.0	40 to 60			1.30	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX13079

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	0.0105	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.137	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7	2		0.02	0.1	1.02	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7	2		0.10	0.5	71.8	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	J 0.00222	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7	2		0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/13/2017	SM 2540C	1			50	580	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	22	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	15		21.0	75	310	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX13079

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23	103	70 to 130	2.22	20
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046	93.8	70 to 130	0.535	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115	105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115	92.1	70 to 130	7.22	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115	79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75	92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115	100	70 to 130	5.08	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15	98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115	89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115	107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115	107	70 to 130	1.73	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115	89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115	97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115	103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115	94.8	70 to 130	5.87	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX13079

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13139	Solids, Dissolved	mg/L	10.0	25			341	51.0	40 to 60	0.888	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX13080

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	0.193	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.0581	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	1.45	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	14.1	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	0.152	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.150	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	348	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		10	14.0	50	150	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX13080

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046		93.8	70 to 130	0.535	20
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23		103	70 to 130	2.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115		105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115		92.1	70 to 130	7.22	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115		79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75		92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115		100	70 to 130	5.08	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115		89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115		97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115		103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115		94.8	70 to 130	5.87	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15		98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115		89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115		107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115		107	70 to 130	1.73	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX13080

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60		0.326 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX13081

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00769	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	3.58	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00227	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	84.0	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX13081

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046		93.8	70 to 130	0.535	20
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23		103	70 to 130	2.22	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115		92.1	70 to 130	7.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115		105	70 to 130	4.11	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115		79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75		92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115		100	70 to 130	5.08	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115		89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115		97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115		103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115		94.8	70 to 130	5.87	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15		98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115		89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115		107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115		107	70 to 130	1.73	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX13081

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60		0.326 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX13082

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	0.00743	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.0229	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	0.185	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7		10	1	5	83.9	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	0.0937	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	J 0.00701	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	503	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	2.6	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.12	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		10	14.0	50	180	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX13082

Sample	Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23	103	70 to 130	2.22	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115	105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115	92.1	70 to 130	7.22	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15	98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115	89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115	107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115	107	70 to 130	1.73	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115	79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75	92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115	100	70 to 130	5.08	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115	89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115	97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115	103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115	94.8	70 to 130	5.87	20
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046	93.8	70 to 130	0.535	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX13082

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60	0.326	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX13083

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.201	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	45.1	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	J 0.0125	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	223	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	5.1	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.13	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	22	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX13083

Sample	Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AX13083	Lithium, Total	mg/L	-0.0000921	0.022	0.20	0.218	0.213	0.195	0.17 to 0.23	103	70 to 130	2.22	20
AX13083	Mercury, Total by CVAA	mg/L	0.0000275	0.0005	0.004	0.00375	0.00373	0.00372	0.0034 to 0.0046	93.8	70 to 130	0.535	20
AX13083	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.105	0.109	0.109	0.085 to 0.115	105	70 to 130	4.11	20
AX13083	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0921	0.0990	0.103	0.085 to 0.115	92.1	70 to 130	7.22	20
AX13083	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.281	0.300	0.0907	0.085 to 0.115	79.9	70 to 130	6.72	20
AX13083	Calcium, Total	mg/L	-0.0423	0.22	5.00	49.8	49.6	4.86	4.25 to 5.75	92.8	70 to 130	0.240	20
AX13083	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.106	0.0974	0.085 to 0.115	100	70 to 130	5.08	20
AX13083	Boron, Total	mg/L	-0.00326	0.044	1.00	0.983	0.954	0.989	0.85 to 1.15	98.3	70 to 130	2.98	20
AX13083	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0898	0.0955	0.0960	0.085 to 0.115	89.8	70 to 130	6.12	20
AX13083	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.107	0.113	0.101	0.085 to 0.115	107	70 to 130	5.67	20
AX13083	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.107	0.108	0.100	0.085 to 0.115	107	70 to 130	1.73	20
AX13083	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0893	0.0943	0.0959	0.085 to 0.115	89.3	70 to 130	5.46	20
AX13083	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.0977	0.104	0.103	0.085 to 0.115	97.7	70 to 130	6.14	20
AX13083	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.103	0.109	0.104	0.085 to 0.115	103	70 to 130	5.64	20
AX13083	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0948	0.100	0.0953	0.085 to 0.115	94.8	70 to 130	5.87	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX13083

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60	0.326	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX13084

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/13/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX13084

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115	88.1	70 to 130	4.69	20	
AX13084	Boron, Total	mg/L	-0.00391	0.044	1.00	0.948	0.927	0.949	0.85 to 1.15	94.8	70 to 130	2.23	20	
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115	93.9	70 to 130	5.85	20	
AX13084	Mercury, Total by CVAA	mg/L	0.0000373	0.0005	0.004	0.00379	0.00381	0.00375	0.0034 to 0.0046	94.8	70 to 130	0.526	20	
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115	100	70 to 130	2.25	20	
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115	88.3	70 to 130	4.73	20	
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115	85.2	70 to 130	4.78	20	
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115	100	70 to 130	5.34	20	
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115	91.3	70 to 130	4.17	20	
AX13084	Lithium, Total	mg/L	-0.000104	0.022	0.20	0.187	0.193	0.190	0.17 to 0.23	93.4	70 to 130	3.36	20	
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115	103	70 to 130	2.21	20	
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115	103	70 to 130	5.27	20	
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115	83.9	70 to 130	2.98	20	
AX13084	Calcium, Total	mg/L	-0.0129	0.22	5.00	4.88	4.75	4.87	4.25 to 5.75	97.5	70 to 130	2.66	20	
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115	106	70 to 130	1.50	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX13084

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60	0.326	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 05-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX13228

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	J 0.00115	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.0552	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7	2		0.02	0.1	J 0.0767	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7	2		0.10	0.5	3.32	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7	2		0.010	0.05	0.0574	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	J 0.00537	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C	1			25	493	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	10	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	0.20	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	1		1.40	5.00	30	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 05-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX13228

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115	93.9	70 to 130	5.85	20
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115	88.1	70 to 130	4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15	92.7	70 to 130	1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23	90.1	70 to 130	6.50	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115	100	70 to 130	2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75	94.6	70 to 130	0.0033820	
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115	106	70 to 130	1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046	95.9	70 to 130	3.46	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115	88.3	70 to 130	4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115	85.2	70 to 130	4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115	100	70 to 130	5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115	91.3	70 to 130	4.17	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115	103	70 to 130	2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115	103	70 to 130	5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115	83.9	70 to 130	2.98	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 05-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX13228

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX13229

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	0.00663	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.228	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7	2		0.02	0.1	J 0.0576	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7	2		0.10	0.5	9.41	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7	2		0.010	0.05	0.123	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.0327	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C	1			25	331	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	4.9	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	0.65	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	1		1.40	5.00	23	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX13229

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115		93.9	70 to 130		5.85	20
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115		88.1	70 to 130		4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15		92.7	70 to 130		1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23		90.1	70 to 130		6.50	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115		103	70 to 130		2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115		103	70 to 130		5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115		83.9	70 to 130		2.98	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115		88.3	70 to 130		4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115		85.2	70 to 130		4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115		100	70 to 130		5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115		91.3	70 to 130		4.17	20
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115		106	70 to 130		1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046		95.9	70 to 130		3.46	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115		100	70 to 130		2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75		94.6	70 to 130		0.0033820	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX13229

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX13229	Solids, Dissolved	mg/L	16.0	25			333	55.0	40 to 60			0.301	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX13230

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.290	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7		2	0.02	0.1	J 0.0247	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7		2	0.10	0.5	32.2	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7		2	0.010	0.05	J 0.0320	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	227	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	2.6	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	12	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX13230

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115		93.9	70 to 130	5.85	20
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115		106	70 to 130	1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046		95.9	70 to 130	3.46	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115		103	70 to 130	2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115		103	70 to 130	5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115		83.9	70 to 130	2.98	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115		100	70 to 130	2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75		94.6	70 to 130	0.0033820	
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115		88.1	70 to 130	4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15		92.7	70 to 130	1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23		90.1	70 to 130	6.50	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115		88.3	70 to 130	4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115		85.2	70 to 130	4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115		100	70 to 130	5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115		91.3	70 to 130	4.17	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX13230

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13230	Solids, Dissolved	mg/L	16.0	25			217	55.0	40 to 60	2.25	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX13231

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	J 0.00131	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.0402	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7	2		0.02	0.1	J 0.0795	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7	2		0.10	0.5	3.24	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7	2		0.010	0.05	0.135	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.0500	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C	1			25	367	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	28	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	0.25	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	1		1.40	5.00	33	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX13231

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115	93.9	70 to 130	5.85	20
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115	106	70 to 130	1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046	95.9	70 to 130	3.46	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115	100	70 to 130	2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75	94.6	70 to 130	0.0033820	
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115	88.1	70 to 130	4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15	92.7	70 to 130	1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23	90.1	70 to 130	6.50	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115	103	70 to 130	2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115	103	70 to 130	5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115	83.9	70 to 130	2.98	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115	88.3	70 to 130	4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115	85.2	70 to 130	4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115	100	70 to 130	5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115	91.3	70 to 130	4.17	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX13231

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX13230	Solids, Dissolved	mg/L	16.0	25			217	55.0	40 to 60			2.25	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX13232

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX13232

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115	93.9	70 to 130	5.85	20	
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115	103	70 to 130	2.21	20	
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115	103	70 to 130	5.27	20	
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115	83.9	70 to 130	2.98	20	
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115	88.1	70 to 130	4.69	20	
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15	92.7	70 to 130	1.25	20	
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23	90.1	70 to 130	6.50	20	
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115	100	70 to 130	2.25	20	
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75	94.6	70 to 130	0.0033820		
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115	106	70 to 130	1.50	20	
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046	95.9	70 to 130	3.46	20	
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115	88.3	70 to 130	4.73	20	
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115	85.2	70 to 130	4.78	20	
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115	100	70 to 130	5.34	20	
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115	91.3	70 to 130	4.17	20	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX13232

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13230	Solids, Dissolved	mg/L	16.0	25			217	55.0	40 to 60	2.25	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report
 Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX13233

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	J 0.00108	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.225	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7	2		0.10	0.5	35.8	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7	2		0.010	0.05	J 0.0397	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C	1			25	223	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	6.2	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	0.15	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	1		1.40	5.00	13	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX13233

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115		93.9	70 to 130	5.85	20
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115		106	70 to 130	1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046		95.9	70 to 130	3.46	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115		103	70 to 130	2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115		103	70 to 130	5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115		83.9	70 to 130	2.98	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115		100	70 to 130	2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75		94.6	70 to 130	0.0033820	
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115		88.1	70 to 130	4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15		92.7	70 to 130	1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23		90.1	70 to 130	6.50	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115		88.3	70 to 130	4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115		85.2	70 to 130	4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115		100	70 to 130	5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115		91.3	70 to 130	4.17	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX13233

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60	0.326	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX13234

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	0.164	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7		2	0.10	0.5	44.4	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	218	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.3	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	0.15	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	11	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX13234

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115		93.9	70 to 130	5.85	20
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115		106	70 to 130	1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046		95.9	70 to 130	3.46	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115		103	70 to 130	2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115		103	70 to 130	5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115		83.9	70 to 130	2.98	20
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115		88.1	70 to 130	4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15		92.7	70 to 130	1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23		90.1	70 to 130	6.50	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115		100	70 to 130	2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75		94.6	70 to 130	0.0033820	
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115		88.3	70 to 130	4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115		85.2	70 to 130	4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115		100	70 to 130	5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115		91.3	70 to 130	4.17	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX13234

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60		0.326 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-13 DUP

Laboratory ID Number: AX13235

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.157	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7	2		0.10	0.5	44.6	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7	2		0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C	1			25	222	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	3.1	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	0.15	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	1		1.40	5.00	11	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-13 DUP

Laboratory ID Number: AX13235

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115		93.9	70 to 130	5.85	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115		103	70 to 130	2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115		103	70 to 130	5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115		83.9	70 to 130	2.98	20
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115		106	70 to 130	1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046		95.9	70 to 130	3.46	20
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115		88.1	70 to 130	4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15		92.7	70 to 130	1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23		90.1	70 to 130	6.50	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115		88.3	70 to 130	4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115		85.2	70 to 130	4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115		100	70 to 130	5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115		91.3	70 to 130	4.17	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115		100	70 to 130	2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75		94.6	70 to 130	0.0033820	

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-13 DUP

Laboratory ID Number: AX13235

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60	0.326	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX13236

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	0.0307	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	0.115	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7	2		0.02	0.1	0.194	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7	2		0.10	0.5	33.4	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7	2		0.010	0.05	J 0.0234	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C	1			25	308	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E	1		0.60	2.00	8.0	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C	1		0.032	0.10	0.43	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E	1		1.40	5.00	J 1.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX13236

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX13236	Arsenic, Total	mg/L	0.0000234	0.0022	0.10	0.125	0.132	0.103	0.085 to 0.115		93.9	70 to 130		5.85	20
AX13236	Cadmium, Total	mg/L	0.0000123	0.00044	0.10	0.0881	0.0924	0.0960	0.085 to 0.115		88.1	70 to 130		4.69	20
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15		92.7	70 to 130		1.25	20
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23		90.1	70 to 130		6.50	20
AX13236	Beryllium, Total	mg/L	0.0000377	0.00132	0.10	0.103	0.105	0.109	0.085 to 0.115		103	70 to 130		2.21	20
AX13236	Cobalt, Total	mg/L	0.00000817	0.0044	0.10	0.103	0.109	0.101	0.085 to 0.115		103	70 to 130		5.27	20
AX13236	Selenium, Total	mg/L	-0.00000234	0.0044	0.10	0.0839	0.0864	0.103	0.085 to 0.115		83.9	70 to 130		2.98	20
AX13236	Thallium, Total	mg/L	0.0000324	0.00044	0.10	0.100	0.102	0.0974	0.085 to 0.115		100	70 to 130		2.25	20
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75		94.6	70 to 130		0.0033820	
AX13236	Lead, Total	mg/L	0.0000344	0.0022	0.10	0.106	0.108	0.100	0.085 to 0.115		106	70 to 130		1.50	20
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046		95.9	70 to 130		3.46	20
AX13236	Antimony, Total	mg/L	0.0000495	0.00132	0.10	0.0883	0.0926	0.0959	0.085 to 0.115		88.3	70 to 130		4.73	20
AX13236	Barium, Total	mg/L	0.0000547	0.0044	0.10	0.200	0.210	0.0907	0.085 to 0.115		85.2	70 to 130		4.78	20
AX13236	Chromium, Total	mg/L	0.0000611	0.0044	0.10	0.100	0.106	0.104	0.085 to 0.115		100	70 to 130		5.34	20
AX13236	Molybdenum, Total	mg/L	0.0000253	0.0044	0.10	0.0913	0.0952	0.0953	0.085 to 0.115		91.3	70 to 130		4.17	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX13236

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX13236	Solids, Dissolved	mg/L	1.00	25			306	46.0	40 to 60	0.326	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX13237

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/14/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/14/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/14/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/14/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/14/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/14/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/14/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX13237

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13237	Molybdenum, Total	mg/L	0.0000143	0.0044	0.10	0.0891	0.0933	0.0951	0.085 to 0.115	89.1	70 to 130	4.59	20	
AX13237	Chromium, Total	mg/L	0.0000389	0.0044	0.10	0.0992	0.105	0.104	0.085 to 0.115	99.2	70 to 130	6.05	20	
AX13237	Cadmium, Total	mg/L	0.0000127	0.00044	0.10	0.0885	0.0932	0.0955	0.085 to 0.115	88.5	70 to 130	5.16	20	
AX13237	Boron, Total	mg/L	0.00167	0.044	1.00	0.927	0.915	0.937	0.85 to 1.15	92.7	70 to 130	1.25	20	
AX13237	Cobalt, Total	mg/L	0.000000597	0.0044	0.10	0.103	0.109	0.106	0.085 to 0.115	103	70 to 130	5.64	20	
AX13237	Lithium, Total	mg/L	-0.0000307	0.022	0.20	0.180	0.192	0.185	0.17 to 0.23	90.1	70 to 130	6.50	20	
AX13237	Lead, Total	mg/L	0.0000383	0.0022	0.10	0.104	0.112	0.103	0.085 to 0.115	104	70 to 130	7.03	20	
AX13237	Mercury, Total by CVAA	mg/L	0.0000133	0.0005	0.004	0.00384	0.00371	0.00388	0.0034 to 0.0046	95.9	70 to 130	3.46	20	
AX13237	Selenium, Total	mg/L	0.0000201	0.0044	0.10	0.0893	0.0943	0.0986	0.085 to 0.115	89.3	70 to 130	5.49	20	
AX13237	Thallium, Total	mg/L	0.0000377	0.00044	0.10	0.0985	0.106	0.100	0.085 to 0.115	98.5	70 to 130	7.11	20	
AX13237	Antimony, Total	mg/L	0.0000467	0.00132	0.10	0.0878	0.0928	0.0958	0.085 to 0.115	87.8	70 to 130	5.50	20	
AX13237	Beryllium, Total	mg/L	0.0000453	0.00132	0.10	0.100	0.109	0.109	0.085 to 0.115	100	70 to 130	8.60	20	
AX13237	Arsenic, Total	mg/L	0.0000195	0.0022	0.10	0.0926	0.0987	0.101	0.085 to 0.115	92.6	70 to 130	6.45	20	
AX13237	Barium, Total	mg/L	0.0000130	0.0044	0.10	0.0860	0.0911	0.0921	0.085 to 0.115	86.0	70 to 130	5.72	20	
AX13237	Calcium, Total	mg/L	0.00337	0.22	5.00	4.73	4.73	4.82	4.25 to 5.75	94.6	70 to 130	0.0033820		

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX13237

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec
AX13236	Solids, Dissolved	mg/L	1.00	25				306	46.0	40 to 60			0.326 5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 06/08/2017 07:30

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Gorgas Ash Pond"/>
Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions"/>		
Comments	<input type="text" value="All anions outsourced to Test America."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	06/05/2017	16:44	4	Groundwater		AX13228
MW-15	06/06/2017	11:10	4	Groundwater		AX13229
MW-16D	06/06/2017	13:13	4	Groundwater		AX13230
MW-21	06/06/2017	15:58	4	Groundwater		AX13231
FB-1	06/06/2017	16:20	4	Field Blank		AX13232
MW-14	06/07/2017	09:50	4	Groundwater		AX13233
MW-13	06/07/2017	11:50	4	Groundwater		AX13234
MW-13 Dup	06/07/2017	11:50	4	Sample Duplicate		AX13235
MW-12	06/07/2017	13:52	4	Groundwater		AX13236
EB-1	06/07/2017	14:30	4	Equipment Blank		AX13237

Relinquished By	Received By	Date/Time
	Anne Ryals <small>Digitally signed by Anne Ryals DN: cn=Anne Ryals, o=APC Environmental Affairs, ou=EA Lab, email=maryals@southernco.com, c=US Date: 2017.06.08 14:55:59 -05'00'</small>	06/08/2017 14:55

SmarTroll ID	<input type="text" value="4696-23443-3-2"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="4677-23342-4-1"/>	Cooler Temp
		<input type="text" value="0.3 Degrees C"/>
		Thermometer ID
		<input type="text" value="2403-7026-4-2"/>
		pH Strip ID
		<input type="text" value="4831-24388-20-15"/>



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 06/08/2017 08:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions		
Comments	All anions outsourced to Test America.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-18	06/06/2017	10:07	4	Groundwater		AX13074
MW-19	06/06/2017	11:35	4	Groundwater		AX13075
MW-19 DUP	06/06/2017	11:35	4	Sample Duplicate		AX13076
MW-2	06/06/2017	13:20	4	Groundwater		AX13077
MW-6D	06/06/2017	15:06	4	Groundwater		AX13078
MW-6S	06/06/2017	16:05	4	Groundwater		AX13079
MW-7	06/07/2017	09:00	4	Groundwater		AX13080
MW-8	06/07/2017	10:30	4	Groundwater		AX13081
MW-9	06/07/2017	12:34	4	Groundwater		AX13082
MW-11	06/07/2017	14:02	4	Groundwater		AX13083
FB-2	06/07/2017	14:40	4	Field Blank		AX13084

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Anne Ryals <small>Digitally signed by Anne Ryals DN: cn=Anne Ryals, o=APC Environmental Affairs, ou=EA Lab, email=maryals@southernco.com, c=US Date: 2017.06.08 08:27:22 -05'00'</small>	06/08/2017 08:27

SmarTroll ID	5151-26193-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp
		0.7 Degrees C
		Thermometer ID
		2403-7026-4-2
		pH Strip ID
		4831-24388-20-15

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: 400-139172-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (8)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/29/2017 3:01:13 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



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	13
Chronicle	14
QC Association	19
QC Sample Results	22
Chain of Custody	28
Receipt Checklists	30
Certification Summary	31

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Job ID: 400-139172-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-139172-1

General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike duplicate (MSD) recovery for analytical batch 357700 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) precision for analytical batch 357700 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 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AX13074 MW-18 (400-139172-1), AX13077 MW-2 (400-139172-4), AX13078 MW-6D (400-139172-5), AX13079 MW-6S (400-139172-6), AX13080 MW-7 (400-139172-7) and AX13082 MW-9 (400-139172-9). Elevated reporting limits (RLs) are provided.



Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13074 MW-18

Lab Sample ID: 400-139172-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.29		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	670		130	35	mg/L	25		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13075 MW-19

Lab Sample ID: 400-139172-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.31		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13076 MW-19 DUP

Lab Sample ID: 400-139172-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.31		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13077 MW-2

Lab Sample ID: 400-139172-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	1.3		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	37		15	4.2	mg/L	3		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13078 MW-6D

Lab Sample ID: 400-139172-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	63		15	4.2	mg/L	3		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13079 MW-6S

Lab Sample ID: 400-139172-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	310		75	21	mg/L	15		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13080 MW-7

Lab Sample ID: 400-139172-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	J	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

Client Sample ID: AX13081 MW-8

Lab Sample ID: 400-139172-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13081 MW-8 (Continued)

Lab Sample ID: 400-139172-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13082 MW-9

Lab Sample ID: 400-139172-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.12		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

Client Sample ID: AX13083 MW-11

Lab Sample ID: 400-139172-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		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	22		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13084 FB-2

Lab Sample ID: 400-139172-11

No Detections.

Client Sample ID: AX13228 MW-17

Lab Sample ID: 400-139172-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.20		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	30		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13229 MW-15

Lab Sample ID: 400-139172-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.65		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	23		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13230 MW-16D

Lab Sample ID: 400-139172-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		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	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13231 MW-21

Lab Sample ID: 400-139172-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28		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	33		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13232 FB-1

Lab Sample ID: 400-139172-16

No Detections.

Client Sample ID: AX13233 MW-14

Lab Sample ID: 400-139172-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.2		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	13		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13234 MW-13

Lab Sample ID: 400-139172-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		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	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13235 MW-13 DUP

Lab Sample ID: 400-139172-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.1		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	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13236 MW-12

Lab Sample ID: 400-139172-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.43		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13237 EB-1

Lab Sample ID: 400-139172-21

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Method	Method Description	Protocol	Laboratory
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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139172-1	AX13074 MW-18	Water	06/06/17 10:07	06/13/17 08:53
400-139172-2	AX13075 MW-19	Water	06/06/17 11:35	06/13/17 08:53
400-139172-3	AX13076 MW-19 DUP	Water	06/06/17 11:35	06/13/17 08:53
400-139172-4	AX13077 MW-2	Water	06/06/17 13:20	06/13/17 08:53
400-139172-5	AX13078 MW-6D	Water	06/06/17 15:06	06/13/17 08:53
400-139172-6	AX13079 MW-6S	Water	06/06/17 16:05	06/13/17 08:53
400-139172-7	AX13080 MW-7	Water	06/07/17 09:00	06/13/17 08:53
400-139172-8	AX13081 MW-8	Water	06/07/17 10:30	06/13/17 08:53
400-139172-9	AX13082 MW-9	Water	06/07/17 12:34	06/13/17 08:53
400-139172-10	AX13083 MW-11	Water	06/07/17 14:02	06/13/17 08:53
400-139172-11	AX13084 FB-2	Water	06/07/17 14:40	06/13/17 08:53
400-139172-12	AX13228 MW-17	Water	06/05/17 16:44	06/13/17 08:53
400-139172-13	AX13229 MW-15	Water	06/06/17 11:10	06/13/17 08:53
400-139172-14	AX13230 MW-16D	Water	06/06/17 13:13	06/13/17 08:53
400-139172-15	AX13231 MW-21	Water	06/06/17 15:58	06/13/17 08:53
400-139172-16	AX13232 FB-1	Water	06/06/17 16:20	06/13/17 08:53
400-139172-17	AX13233 MW-14	Water	06/07/17 09:50	06/13/17 08:53
400-139172-18	AX13234 MW-13	Water	06/07/17 11:50	06/13/17 08:53
400-139172-19	AX13235 MW-13 DUP	Water	06/07/17 11:50	06/13/17 08:53
400-139172-20	AX13236 MW-12	Water	06/07/17 13:52	06/13/17 08:53
400-139172-21	AX13237 EB-1	Water	06/07/17 14:30	06/13/17 08:53

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13074 MW-18

Lab Sample ID: 400-139172-1

Date Collected: 06/06/17 10:07

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36		2.0	0.60	mg/L			06/17/17 12:48	1
Fluoride	0.29		0.10	0.032	mg/L			06/22/17 17:00	1
Sulfate	670		130	35	mg/L			06/20/17 12:43	25

Client Sample ID: AX13075 MW-19

Lab Sample ID: 400-139172-2

Date Collected: 06/06/17 11:35

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		2.0	0.60	mg/L			06/17/17 12:48	1
Fluoride	0.31		0.10	0.032	mg/L			06/22/17 17:02	1
Sulfate	5.2		5.0	1.4	mg/L			06/20/17 12:38	1

Client Sample ID: AX13076 MW-19 DUP

Lab Sample ID: 400-139172-3

Date Collected: 06/06/17 11:35

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		2.0	0.60	mg/L			06/17/17 12:48	1
Fluoride	0.31		0.10	0.032	mg/L			06/22/17 17:04	1
Sulfate	5.1		5.0	1.4	mg/L			06/20/17 12:38	1

Client Sample ID: AX13077 MW-2

Lab Sample ID: 400-139172-4

Date Collected: 06/06/17 13:20

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.6		2.0	0.60	mg/L			06/17/17 12:48	1
Fluoride	1.3		0.10	0.032	mg/L			06/22/17 17:06	1
Sulfate	37		15	4.2	mg/L			06/20/17 13:19	3

Client Sample ID: AX13078 MW-6D

Lab Sample ID: 400-139172-5

Date Collected: 06/06/17 15:06

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7		2.0	0.60	mg/L			06/17/17 12:48	1
Fluoride	0.12		0.10	0.032	mg/L			06/22/17 17:12	1
Sulfate	63		15	4.2	mg/L			06/20/17 13:19	3

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13079 MW-6S

Lab Sample ID: 400-139172-6

Date Collected: 06/06/17 16:05

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22		2.0	0.60	mg/L			06/17/17 12:48	1
Fluoride	0.090	J	0.10	0.032	mg/L			06/22/17 17:17	1
Sulfate	310		75	21	mg/L			06/20/17 12:43	15

Client Sample ID: AX13080 MW-7

Lab Sample ID: 400-139172-7

Date Collected: 06/07/17 09:00

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			06/17/17 13:10	1
Fluoride	0.090	J	0.10	0.032	mg/L			06/22/17 17:19	1
Sulfate	150		50	14	mg/L			06/20/17 12:46	10

Client Sample ID: AX13081 MW-8

Lab Sample ID: 400-139172-8

Date Collected: 06/07/17 10:30

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			06/17/17 13:10	1
Fluoride	0.080	J	0.10	0.032	mg/L			06/22/17 17:20	1
Sulfate	2.7	J	5.0	1.4	mg/L			06/20/17 12:39	1

Client Sample ID: AX13082 MW-9

Lab Sample ID: 400-139172-9

Date Collected: 06/07/17 12:34

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		2.0	0.60	mg/L			06/17/17 13:10	1
Fluoride	0.12		0.10	0.032	mg/L			06/22/17 17:22	1
Sulfate	180		50	14	mg/L			06/20/17 13:19	10

Client Sample ID: AX13083 MW-11

Lab Sample ID: 400-139172-10

Date Collected: 06/07/17 14:02

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		2.0	0.60	mg/L			06/17/17 13:10	1
Fluoride	0.13		0.10	0.032	mg/L			06/22/17 16:49	1
Sulfate	22		5.0	1.4	mg/L			06/20/17 14:59	1

Client Sample ID: AX13084 FB-2

Lab Sample ID: 400-139172-11

Date Collected: 06/07/17 14:40

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/17/17 13:10	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13084 FB-2

Lab Sample ID: 400-139172-11

Date Collected: 06/07/17 14:40

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/22/17 17:25	1
Sulfate	<1.4		5.0	1.4	mg/L			06/20/17 14:59	1

Client Sample ID: AX13228 MW-17

Lab Sample ID: 400-139172-12

Date Collected: 06/05/17 16:44

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	0.60	mg/L			06/17/17 13:10	1
Fluoride	0.20		0.10	0.032	mg/L			06/22/17 17:26	1
Sulfate	30		5.0	1.4	mg/L			06/20/17 14:59	1

Client Sample ID: AX13229 MW-15

Lab Sample ID: 400-139172-13

Date Collected: 06/06/17 11:10

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	0.65		0.10	0.032	mg/L			06/22/17 17:29	1
Sulfate	23		5.0	1.4	mg/L			06/20/17 14:59	1

Client Sample ID: AX13230 MW-16D

Lab Sample ID: 400-139172-14

Date Collected: 06/06/17 13:13

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	0.11		0.10	0.032	mg/L			06/24/17 09:53	1
Sulfate	12		5.0	1.4	mg/L			06/20/17 14:59	1

Client Sample ID: AX13231 MW-21

Lab Sample ID: 400-139172-15

Date Collected: 06/06/17 15:58

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	0.25		0.10	0.032	mg/L			06/24/17 10:00	1
Sulfate	33		5.0	1.4	mg/L			06/20/17 14:59	1

Client Sample ID: AX13232 FB-1

Lab Sample ID: 400-139172-16

Date Collected: 06/06/17 16:20

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 10:04	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13232 FB-1

Lab Sample ID: 400-139172-16

Date Collected: 06/06/17 16:20

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/20/17 15:22	1

Client Sample ID: AX13233 MW-14

Lab Sample ID: 400-139172-17

Date Collected: 06/07/17 09:50

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.2		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	0.15		0.10	0.032	mg/L			06/24/17 10:06	1
Sulfate	13		5.0	1.4	mg/L			06/20/17 15:22	1

Client Sample ID: AX13234 MW-13

Lab Sample ID: 400-139172-18

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	0.15		0.10	0.032	mg/L			06/24/17 10:08	1
Sulfate	11		5.0	1.4	mg/L			06/20/17 15:22	1

Client Sample ID: AX13235 MW-13 DUP

Lab Sample ID: 400-139172-19

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		2.0	0.60	mg/L			06/17/17 13:26	1
Fluoride	0.15		0.10	0.032	mg/L			06/24/17 10:10	1
Sulfate	11		5.0	1.4	mg/L			06/20/17 15:22	1

Client Sample ID: AX13236 MW-12

Lab Sample ID: 400-139172-20

Date Collected: 06/07/17 13:52

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.0		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	0.43		0.10	0.032	mg/L			06/27/17 17:05	1
Sulfate	1.7 J		5.0	1.4	mg/L			06/20/17 15:22	1

Client Sample ID: AX13237 EB-1

Lab Sample ID: 400-139172-21

Date Collected: 06/07/17 14:30

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/22/17 12:56	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 16:53	1
Sulfate	<1.4		5.0	1.4	mg/L			06/20/17 15:22	1

TestAmerica Pensacola

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13074 MW-18

Date Collected: 06/06/17 10:07

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139172-1

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	357383	06/17/17 12:48	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		25	357700	06/20/17 12:43	JLB	TAL PEN

Client Sample ID: AX13075 MW-19

Date Collected: 06/06/17 11:35

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139172-2

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	357383	06/17/17 12:48	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:02	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357700	06/20/17 12:38	JLB	TAL PEN

Client Sample ID: AX13076 MW-19 DUP

Date Collected: 06/06/17 11:35

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139172-3

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	357383	06/17/17 12:48	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357700	06/20/17 12:38	JLB	TAL PEN

Client Sample ID: AX13077 MW-2

Date Collected: 06/06/17 13:20

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139172-4

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	357383	06/17/17 12:48	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		3	357700	06/20/17 13:19	JLB	TAL PEN

Client Sample ID: AX13078 MW-6D

Date Collected: 06/06/17 15:06

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139172-5

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	357383	06/17/17 12:48	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:12	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		3	357700	06/20/17 13:19	JLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13079 MW-6S

Lab Sample ID: 400-139172-6

Date Collected: 06/06/17 16:05

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 12:48	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		15	357700	06/20/17 12:43	JLB	TAL PEN

Client Sample ID: AX13080 MW-7

Lab Sample ID: 400-139172-7

Date Collected: 06/07/17 09:00

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:10	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	357700	06/20/17 12:46	JLB	TAL PEN

Client Sample ID: AX13081 MW-8

Lab Sample ID: 400-139172-8

Date Collected: 06/07/17 10:30

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:10	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357700	06/20/17 12:39	JLB	TAL PEN

Client Sample ID: AX13082 MW-9

Lab Sample ID: 400-139172-9

Date Collected: 06/07/17 12:34

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:10	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	357700	06/20/17 13:19	JLB	TAL PEN

Client Sample ID: AX13083 MW-11

Lab Sample ID: 400-139172-10

Date Collected: 06/07/17 14:02

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:10	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 16:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 14:59	JLB	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13084 FB-2

Lab Sample ID: 400-139172-11

Date Collected: 06/07/17 14:40

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:10	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:25	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 14:59	JLB	TAL PEN

Client Sample ID: AX13228 MW-17

Lab Sample ID: 400-139172-12

Date Collected: 06/05/17 16:44

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:10	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 14:59	JLB	TAL PEN

Client Sample ID: AX13229 MW-15

Lab Sample ID: 400-139172-13

Date Collected: 06/06/17 11:10

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358063	06/22/17 17:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 14:59	JLB	TAL PEN

Client Sample ID: AX13230 MW-16D

Lab Sample ID: 400-139172-14

Date Collected: 06/06/17 13:13

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 09:53	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 14:59	JLB	TAL PEN

Client Sample ID: AX13231 MW-21

Lab Sample ID: 400-139172-15

Date Collected: 06/06/17 15:58

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:00	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 14:59	JLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13232 FB-1

Lab Sample ID: 400-139172-16

Date Collected: 06/06/17 16:20

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:04	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 15:22	JLB	TAL PEN

Client Sample ID: AX13233 MW-14

Lab Sample ID: 400-139172-17

Date Collected: 06/07/17 09:50

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:06	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 15:22	JLB	TAL PEN

Client Sample ID: AX13234 MW-13

Lab Sample ID: 400-139172-18

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:08	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 15:22	JLB	TAL PEN

Client Sample ID: AX13235 MW-13 DUP

Lab Sample ID: 400-139172-19

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357383	06/17/17 13:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:10	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 15:22	JLB	TAL PEN

Client Sample ID: AX13236 MW-12

Lab Sample ID: 400-139172-20

Date Collected: 06/07/17 13:52

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:05	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 15:22	JLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13237 EB-1

Lab Sample ID: 400-139172-21

Date Collected: 06/07/17 14:30

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 16:53	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357730	06/20/17 15:22	JLB	TAL PEN

Laboratory References:

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

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

General Chemistry

Analysis Batch: 357383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-1	AX13074 MW-18	Total/NA	Water	SM 4500 Cl- E	
400-139172-2	AX13075 MW-19	Total/NA	Water	SM 4500 Cl- E	
400-139172-3	AX13076 MW-19 DUP	Total/NA	Water	SM 4500 Cl- E	
400-139172-4	AX13077 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-139172-5	AX13078 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-139172-6	AX13079 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-139172-7	AX13080 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-139172-8	AX13081 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-139172-9	AX13082 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-139172-10	AX13083 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-139172-11	AX13084 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-139172-12	AX13228 MW-17	Total/NA	Water	SM 4500 Cl- E	
400-139172-13	AX13229 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-139172-14	AX13230 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-139172-15	AX13231 MW-21	Total/NA	Water	SM 4500 Cl- E	
400-139172-16	AX13232 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-139172-17	AX13233 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-139172-18	AX13234 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-139172-19	AX13235 MW-13 DUP	Total/NA	Water	SM 4500 Cl- E	
MB 400-357383/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-357383/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-357383/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-139172-10 MS	AX13083 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-139172-10 MSD	AX13083 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-139172-14 MS	AX13230 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-139172-14 MSD	AX13230 MW-16D	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 357700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-1	AX13074 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-139172-2	AX13075 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-139172-3	AX13076 MW-19 DUP	Total/NA	Water	SM 4500 SO4 E	
400-139172-4	AX13077 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-139172-5	AX13078 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-139172-6	AX13079 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-139172-7	AX13080 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-139172-8	AX13081 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-139172-9	AX13082 MW-9	Total/NA	Water	SM 4500 SO4 E	
MB 400-357700/45	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-357700/46	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-357700/42	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-139026-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-139026-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-139095-G-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-139095-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 357730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-10	AX13083 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-139172-11	AX13084 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-139172-12	AX13228 MW-17	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

General Chemistry (Continued)

Analysis Batch: 357730 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-13	AX13229 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-139172-14	AX13230 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-139172-15	AX13231 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-139172-16	AX13232 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-139172-17	AX13233 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-139172-18	AX13234 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-139172-19	AX13235 MW-13 DUP	Total/NA	Water	SM 4500 SO4 E	
400-139172-20	AX13236 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-139172-21	AX13237 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-357730/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-357730/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-357730/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-139172-10 MS	AX13083 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-139172-10 MSD	AX13083 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-139172-14 MS	AX13230 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-139172-14 MSD	AX13230 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-139172-21 MS	AX13237 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-139172-21 MSD	AX13237 EB-1	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 358006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-20	AX13236 MW-12	Total/NA	Water	SM 4500 CI- E	
400-139172-21	AX13237 EB-1	Total/NA	Water	SM 4500 CI- E	
MB 400-358006/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-358006/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-358006/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-139172-21 MS	AX13237 EB-1	Total/NA	Water	SM 4500 CI- E	
400-139172-21 MSD	AX13237 EB-1	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 358063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-1	AX13074 MW-18	Total/NA	Water	SM 4500 F C	
400-139172-2	AX13075 MW-19	Total/NA	Water	SM 4500 F C	
400-139172-3	AX13076 MW-19 DUP	Total/NA	Water	SM 4500 F C	
400-139172-4	AX13077 MW-2	Total/NA	Water	SM 4500 F C	
400-139172-5	AX13078 MW-6D	Total/NA	Water	SM 4500 F C	
400-139172-6	AX13079 MW-6S	Total/NA	Water	SM 4500 F C	
400-139172-7	AX13080 MW-7	Total/NA	Water	SM 4500 F C	
400-139172-8	AX13081 MW-8	Total/NA	Water	SM 4500 F C	
400-139172-9	AX13082 MW-9	Total/NA	Water	SM 4500 F C	
400-139172-10	AX13083 MW-11	Total/NA	Water	SM 4500 F C	
400-139172-11	AX13084 FB-2	Total/NA	Water	SM 4500 F C	
400-139172-12	AX13228 MW-17	Total/NA	Water	SM 4500 F C	
400-139172-13	AX13229 MW-15	Total/NA	Water	SM 4500 F C	
MB 400-358063/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358063/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139172-10 MS	AX13083 MW-11	Total/NA	Water	SM 4500 F C	
400-139172-10 MSD	AX13083 MW-11	Total/NA	Water	SM 4500 F C	
400-139172-5 DU	AX13078 MW-6D	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
SDG: Gorgas Ash Pond (8)

General Chemistry (Continued)

Analysis Batch: 358226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-14	AX13230 MW-16D	Total/NA	Water	SM 4500 F C	
400-139172-15	AX13231 MW-21	Total/NA	Water	SM 4500 F C	
400-139172-16	AX13232 FB-1	Total/NA	Water	SM 4500 F C	
400-139172-17	AX13233 MW-14	Total/NA	Water	SM 4500 F C	
400-139172-18	AX13234 MW-13	Total/NA	Water	SM 4500 F C	
400-139172-19	AX13235 MW-13 DUP	Total/NA	Water	SM 4500 F C	
MB 400-358226/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358226/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139172-14 MS	AX13230 MW-16D	Total/NA	Water	SM 4500 F C	
400-139172-14 MSD	AX13230 MW-16D	Total/NA	Water	SM 4500 F C	
400-139178-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 358604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139172-20	AX13236 MW-12	Total/NA	Water	SM 4500 F C	
400-139172-21	AX13237 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-358604/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358604/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139172-21 MS	AX13237 EB-1	Total/NA	Water	SM 4500 F C	
400-139172-21 MSD	AX13237 EB-1	Total/NA	Water	SM 4500 F C	
400-139305-A-9 DU	Duplicate	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-357383/6
Matrix: Water
Analysis Batch: 357383

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/17/17 12:29	1

Lab Sample ID: LCS 400-357383/7
Matrix: Water
Analysis Batch: 357383

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	32.2		mg/L		107	90 - 110

Lab Sample ID: MRL 400-357383/3
Matrix: Water
Analysis Batch: 357383

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	1.60	J	mg/L		80	50 - 150

Lab Sample ID: 400-139172-10 MS
Matrix: Water
Analysis Batch: 357383

Client Sample ID: AX13083 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.1		10.0	16.5		mg/L		115	73 - 120

Lab Sample ID: 400-139172-10 MSD
Matrix: Water
Analysis Batch: 357383

Client Sample ID: AX13083 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.1		10.0	16.7		mg/L		116	73 - 120	1	8

Lab Sample ID: 400-139172-14 MS
Matrix: Water
Analysis Batch: 357383

Client Sample ID: AX13230 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.6		10.0	13.9		mg/L		113	73 - 120

Lab Sample ID: 400-139172-14 MSD
Matrix: Water
Analysis Batch: 357383

Client Sample ID: AX13230 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.6		10.0	14.0		mg/L		114	73 - 120	1	8

Lab Sample ID: MB 400-358006/6
Matrix: Water
Analysis Batch: 358006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/22/17 12:10	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Lab Sample ID: LCS 400-358006/7
Matrix: Water
Analysis Batch: 358006

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	32.2		mg/L		107	90 - 110

Lab Sample ID: MRL 400-358006/3
Matrix: Water
Analysis Batch: 358006

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	1.21	J	mg/L		60	50 - 150

Lab Sample ID: 400-139172-21 MS
Matrix: Water
Analysis Batch: 358006

Client Sample ID: AX13237 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.60		10.0	10.9		mg/L		109	73 - 120

Lab Sample ID: 400-139172-21 MSD
Matrix: Water
Analysis Batch: 358006

Client Sample ID: AX13237 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.60		10.0	11.2		mg/L		112	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-358063/3
Matrix: Water
Analysis Batch: 358063

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/22/17 16:40	1

Lab Sample ID: LCS 400-358063/4
Matrix: Water
Analysis Batch: 358063

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	4.02		mg/L		101	90 - 110

Lab Sample ID: 400-139172-10 MS
Matrix: Water
Analysis Batch: 358063

Client Sample ID: AX13083 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.13		1.00	1.08		mg/L		95	75 - 125

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-139172-10 MSD
Matrix: Water
Analysis Batch: 358063

Client Sample ID: AX13083 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.13		1.00	1.06		mg/L		93	75 - 125	2	4

Lab Sample ID: 400-139172-5 DU
Matrix: Water
Analysis Batch: 358063

Client Sample ID: AX13078 MW-6D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.12		0.120		mg/L		0	4

Lab Sample ID: MB 400-358226/3
Matrix: Water
Analysis Batch: 358226

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 09:45	1

Lab Sample ID: LCS 400-358226/4
Matrix: Water
Analysis Batch: 358226

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: 400-139172-14 MS
Matrix: Water
Analysis Batch: 358226

Client Sample ID: AX13230 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.11		1.00	1.10		mg/L		99	75 - 125

Lab Sample ID: 400-139172-14 MSD
Matrix: Water
Analysis Batch: 358226

Client Sample ID: AX13230 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.11		1.00	1.08		mg/L		97	75 - 125	2	4

Lab Sample ID: 400-139178-A-3 DU
Matrix: Water
Analysis Batch: 358226

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.049	J	0.0480	J	mg/L		2	4

Lab Sample ID: MB 400-358604/3
Matrix: Water
Analysis Batch: 358604

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 16:45	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Lab Sample ID: LCS 400-358604/4
Matrix: Water
Analysis Batch: 358604

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	4.02		mg/L		101	90 - 110

Lab Sample ID: 400-139172-21 MS
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13237 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.970		mg/L		97	75 - 125

Lab Sample ID: 400-139172-21 MSD
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13237 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	0.970		mg/L		97	75 - 125	0	4

Lab Sample ID: 400-139305-A-9 DU
Matrix: Water
Analysis Batch: 358604

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.070	J		0.0700	J	mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-357700/45
Matrix: Water
Analysis Batch: 357700

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/20/17 12:18	1

Lab Sample ID: LCS 400-357700/46
Matrix: Water
Analysis Batch: 357700

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	15.6		mg/L		104	90 - 110

Lab Sample ID: MRL 400-357700/42
Matrix: Water
Analysis Batch: 357700

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	4.24	J	mg/L		85	50 - 150

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

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

Lab Sample ID: 400-139026-A-1 MS

Matrix: Water
Analysis Batch: 357700

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	11	F1	10.0	22.6		mg/L		121	77 - 128

Lab Sample ID: 400-139026-A-1 MSD

Matrix: Water
Analysis Batch: 357700

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	11	F1	10.0	23.4	F1	mg/L		129	77 - 128	3	5

Lab Sample ID: 400-139095-G-1 MS

Matrix: Water
Analysis Batch: 357700

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	F2	10.0	8.71		mg/L		87	77 - 128

Lab Sample ID: 400-139095-G-1 MSD

Matrix: Water
Analysis Batch: 357700

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	F2	10.0	9.22	F2	mg/L		92	77 - 128	6	5

Lab Sample ID: MB 400-357730/6

Matrix: Water
Analysis Batch: 357730

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/20/17 14:44	1

Lab Sample ID: LCS 400-357730/7

Matrix: Water
Analysis Batch: 357730

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.5		mg/L		103	90 - 110

Lab Sample ID: MRL 400-357730/3

Matrix: Water
Analysis Batch: 357730

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	J	mg/L		83	50 - 150

Lab Sample ID: 400-139172-10 MS

Matrix: Water
Analysis Batch: 357730

Client Sample ID: AX13083 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	22		10.0	32.5		mg/L		107	77 - 128

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

Lab Sample ID: 400-139172-10 MSD
Matrix: Water
Analysis Batch: 357730

Client Sample ID: AX13083 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	22		10.0	32.2		mg/L		104	77 - 128	1	5

Lab Sample ID: 400-139172-14 MS
Matrix: Water
Analysis Batch: 357730

Client Sample ID: AX13230 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	12		10.0	23.1		mg/L		112	77 - 128		

Lab Sample ID: 400-139172-14 MSD
Matrix: Water
Analysis Batch: 357730

Client Sample ID: AX13230 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	12		10.0	22.9		mg/L		111	77 - 128	1	5

Lab Sample ID: 400-139172-21 MS
Matrix: Water
Analysis Batch: 357730

Client Sample ID: AX13237 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	9.13		mg/L		91	77 - 128		

Lab Sample ID: 400-139172-21 MSD
Matrix: Water
Analysis Batch: 357730

Client Sample ID: AX13237 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	9.10		mg/L		91	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
 Client Contact: Ben Rothschild
 Phone: Sarah Copeland
 Lab PM: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com
 Camera Tracking No(s):

Company: Alabama Power General Test Laboratory
 Address: 744 County Rd 87 GSC #8
 City: Calera
 State, Zip: AL, 35040
 Phone: 205-664-6121(Tel)
 Email: sgcopelia@southernco.com
 Project #: 40007143
 CCR
 Site: Gorgas Ash Pond (8)

Due Date Requested: Routine
 TAT Requested (days):
 PO #:
 WO #:
 Project #:
 CCR
 SSOW#:

Analysis Requested
 Perform MSMSD (Yes or No) N
 Field Filtered Sample (Yes or No) X
 SM 4500 F_C X
 SM 4500 Cl_E X
 SM 4500 SO4_E X

Sample Identification

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefl, BT=Issue, A=AU)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MSMSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	Total Number of Containers	Special Instructions/Note:
AX13074	6/6/17	1007	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-18
AX13075	6/6/17	1135	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-19
AX13076	6/6/17	1135	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-19 Dup (Sample Duplicate)
AX13077	6/6/17	1320	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-2
AX13078	6/6/17	1506	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-6D
AX13079	6/6/17	1605	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-6S
AX13080	6/7/17	0900	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-7
AX13081	6/7/17	1030	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-8
AX13082	6/7/17	1234	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-9
AX13083	6/7/17	1402	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	MW-11
AX13084	6/7/17	1440	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	FB-2 (Field Blank)

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Sarah Copeland
 Relinquished by: Sarah Copeland
 Relinquished by:
 Relinquished by:

Method of Shipment:
 Date/Time: 06/12/2017: 1030
 Date/Time:
 Date/Time:

Company: APC
 Company
 Company

Company: TA
 Company
 Company

Cooler Temperature(s) °C and Other Remarks:
 4.5 IR-7

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-139172-1
SDG Number: Gorgas Ash Pond (8)

Login Number: 139172

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	4.5°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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139172-1
 SDG: Gorgas Ash Pond (8)

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	09-01-17
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	06-30-18
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	06-30-18

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: 400-139166-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond (8)

Client Project/Site: CCR Plant Gorgas

For:

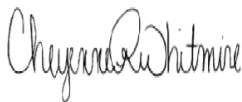
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

7/12/2017 6:02:15 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Method Summary	4
Sample Summary	5
Client Sample Results	6
Definitions	27
Chronicle	28
QC Association	34
QC Sample Results	36
Chain of Custody	40
Receipt Checklists	42
Certification Summary	43

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
SDG: Gorgas Ash Pond (8)

Job ID: 400-139166-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-139166-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-314269. The following samples were reduced due to limited volume: AX13063 MW-18 (400-139166-1), AX13063 MW-18 (400-139166-1[DUJ]), AX13064 MW-19 (400-139166-2), AX13065 MW-19 DUP (400-139166-3), AX13066 MW-2 (400-139166-4), AX13067 MW-6D (400-139166-5), AX13068 MW-6S (400-139166-6), AX13069 MW-7 (400-139166-7), AX13070 MW-8 (400-139166-8), AX13071 MW-9 (400-139166-9), AX13072 MW-11 (400-139166-10), AX13073 FB-2 (400-139166-11), AX13218 MW-17 (400-139166-12), AX13219 MW-15 (400-139166-13), AX13220 MW-16D (400-139166-14), AX13221 MW-21 (400-139166-15), AX13222 FB-1 (400-139166-16), AX13223 MW-14 (400-139166-17), AX13223 MW-14 (400-139166-17[DUJ]), AX13224 MW-13 (400-139166-18), AX13225 MW-13 DUP (400-139166-19) and AX13226 MW-12 (400-139166-20).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-314280. 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. AX13227 EB-1 (400-139166-21)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-314280. The following sample was reduced due to limited volume: AX13227 EB-1 (400-139166-21).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-314265. The following samples were reduced due to limited volume: AX13063 MW-18 (400-139166-1), AX13063 MW-18 (400-139166-1[DUJ]), AX13064 MW-19 (400-139166-2), AX13065 MW-19 DUP (400-139166-3), AX13066 MW-2 (400-139166-4), AX13067 MW-6D (400-139166-5), AX13068 MW-6S (400-139166-6), AX13069 MW-7 (400-139166-7), AX13070 MW-8 (400-139166-8), AX13071 MW-9 (400-139166-9), AX13072 MW-11 (400-139166-10), AX13073 FB-2 (400-139166-11), AX13218 MW-17 (400-139166-12), AX13219 MW-15 (400-139166-13), AX13220 MW-16D (400-139166-14), AX13221 MW-21 (400-139166-15), AX13222 FB-1 (400-139166-16), AX13223 MW-14 (400-139166-17), AX13223 MW-14 (400-139166-17[DUJ]), AX13224 MW-13 (400-139166-18), AX13225 MW-13 DUP (400-139166-19) and AX13226 MW-12 (400-139166-20).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-314266. The following sample was reduced due to limited volume: AX13227 EB-1 (400-139166-21).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
SDG: Gorgas Ash Pond (8)

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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
SDG: Gorgas Ash Pond (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139166-1	AX13063 MW-18	Water	06/06/17 10:07	06/12/17 14:27
400-139166-2	AX13064 MW-19	Water	06/06/17 11:35	06/12/17 14:27
400-139166-3	AX13065 MW-19 DUP	Water	06/06/17 11:35	06/12/17 14:27
400-139166-4	AX13066 MW-2	Water	06/06/17 13:20	06/12/17 14:27
400-139166-5	AX13067 MW-6D	Water	06/06/17 15:06	06/12/17 14:27
400-139166-6	AX13068 MW-6S	Water	06/06/17 16:05	06/12/17 14:27
400-139166-7	AX13069 MW-7	Water	06/07/17 09:00	06/12/17 14:27
400-139166-8	AX13070 MW-8	Water	06/07/17 10:30	06/12/17 14:27
400-139166-9	AX13071 MW-9	Water	06/07/17 12:34	06/12/17 14:27
400-139166-10	AX13072 MW-11	Water	06/07/17 14:02	06/12/17 14:27
400-139166-11	AX13073 FB-2	Water	06/07/17 14:40	06/12/17 14:27
400-139166-12	AX13218 MW-17	Water	06/05/17 16:44	06/12/17 14:27
400-139166-13	AX13219 MW-15	Water	06/06/17 11:10	06/12/17 14:27
400-139166-14	AX13220 MW-16D	Water	06/06/17 13:13	06/12/17 14:27
400-139166-15	AX13221 MW-21	Water	06/06/17 15:58	06/12/17 14:27
400-139166-16	AX13222 FB-1	Water	06/06/17 16:20	06/12/17 14:27
400-139166-17	AX13223 MW-14	Water	06/07/17 09:50	06/12/17 14:27
400-139166-18	AX13224 MW-13	Water	06/07/17 11:50	06/12/17 14:27
400-139166-19	AX13225 MW-13 DUP	Water	06/07/17 11:50	06/12/17 14:27
400-139166-20	AX13226 MW-12	Water	06/07/17 13:52	06/12/17 14:27
400-139166-21	AX13227 EB-1	Water	06/07/17 14:30	06/12/17 14:27

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13063 MW-18

Lab Sample ID: 400-139166-1

Date Collected: 06/06/17 10:07

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0674	U	0.0764	0.0766	1.00	0.123	pCi/L	06/20/17 08:33	07/12/17 06:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/20/17 08:33	07/12/17 06:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.000	U	0.260	0.260	1.00	0.467	pCi/L	06/20/17 09:07	06/28/17 14:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/20/17 09:07	06/28/17 14:24	1
Y Carrier	89.3		40 - 110					06/20/17 09:07	06/28/17 14:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0674	U	0.271	0.271	5.00	0.467	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13064 MW-19

Lab Sample ID: 400-139166-2

Date Collected: 06/06/17 11:35

Matrix: Water

Date Received: 06/12/17 14:27

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		0.118	0.122	1.00	0.108	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.567		0.275	0.280	1.00	0.390	pCi/L	06/20/17 09:07	06/28/17 14:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/20/17 09:07	06/28/17 14:24	1
Y Carrier	89.7		40 - 110					06/20/17 09:07	06/28/17 14:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.909		0.299	0.305	5.00	0.390	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13065 MW-19 DUP

Lab Sample ID: 400-139166-3

Date Collected: 06/06/17 11:35

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.285		0.105	0.108	1.00	0.0970	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.429		0.254	0.257	1.00	0.379	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	89.7		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.715		0.275	0.279	5.00	0.379	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13066 MW-2

Lab Sample ID: 400-139166-4

Date Collected: 06/06/17 13:20

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0657	U	0.0690	0.0692	1.00	0.109	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0216	U	0.227	0.227	1.00	0.406	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	91.6		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.0873	U	0.237	0.237	5.00	0.406	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13067 MW-6D

Lab Sample ID: 400-139166-5

Date Collected: 06/06/17 15:06

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332		0.117	0.121	1.00	0.116	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.176	U	0.228	0.228	1.00	0.440	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	93.5		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.156	U	0.256	0.258	5.00	0.440	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13068 MW-6S

Lab Sample ID: 400-139166-6

Date Collected: 06/06/17 16:05

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.202		0.0948	0.0965	1.00	0.104	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.390	U	0.271	0.273	1.00	0.418	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	93.5		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.592		0.287	0.290	5.00	0.418	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13069 MW-7

Lab Sample ID: 400-139166-7

Date Collected: 06/07/17 09:00

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0262	U	0.0587	0.0587	1.00	0.108	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0698	U	0.224	0.224	1.00	0.392	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	92.7		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.0960	U	0.231	0.231	5.00	0.392	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13070 MW-8

Lab Sample ID: 400-139166-8

Date Collected: 06/07/17 10:30

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.126		0.0791	0.0799	1.00	0.0986	pCi/L	06/20/17 08:33	07/12/17 06:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					06/20/17 08:33	07/12/17 06:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.404		0.263	0.265	1.00	0.399	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	90.8		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.529		0.274	0.277	5.00	0.399	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13071 MW-9

Lab Sample ID: 400-139166-9

Date Collected: 06/07/17 12:34

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144		0.0838	0.0848	1.00	0.103	pCi/L	06/20/17 08:33	07/12/17 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/20/17 08:33	07/12/17 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0574	U	0.222	0.222	1.00	0.413	pCi/L	06/20/17 09:07	06/28/17 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/20/17 09:07	06/28/17 14:25	1
Y Carrier	92.3		40 - 110					06/20/17 09:07	06/28/17 14:25	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	0.0871	U	0.237	0.237	5.00	0.413	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13072 MW-11

Lab Sample ID: 400-139166-10

Date Collected: 06/07/17 14:02

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.206		0.0958	0.0976	1.00	0.109	pCi/L	06/20/17 08:33	07/12/17 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					06/20/17 08:33	07/12/17 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.129	U	0.250	0.250	1.00	0.471	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	95.3		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0770	U	0.268	0.269	5.00	0.471	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13073 FB-2

Lab Sample ID: 400-139166-11

Date Collected: 06/07/17 14:40

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0227	U	0.0296	0.0297	1.00	0.0889	pCi/L	06/20/17 08:33	07/12/17 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					06/20/17 08:33	07/12/17 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0425	U	0.209	0.209	1.00	0.373	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	90.5		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0198	U	0.211	0.211	5.00	0.373	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13218 MW-17

Lab Sample ID: 400-139166-12

Date Collected: 06/05/17 16:44

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0579	U	0.0702	0.0704	1.00	0.115	pCi/L	06/20/17 08:33	07/12/17 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/20/17 08:33	07/12/17 06:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.418	U	0.273	0.276	1.00	0.419	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	94.2		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.476		0.282	0.285	5.00	0.419	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13219 MW-15

Lab Sample ID: 400-139166-13

Date Collected: 06/06/17 11:10

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0876	U	0.0868	0.0871	1.00	0.136	pCi/L	06/20/17 08:33	07/12/17 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					06/20/17 08:33	07/12/17 06:04	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0257	U	0.314	0.314	1.00	0.559	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	92.0		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0618	U	0.326	0.326	5.00	0.559	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13220 MW-16D

Lab Sample ID: 400-139166-14

Date Collected: 06/06/17 13:13

Matrix: Water

Date Received: 06/12/17 14:27

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		0.133	0.137	1.00	0.138	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.118	U	0.242	0.242	1.00	0.415	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	93.8		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.464		0.276	0.278	5.00	0.415	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13221 MW-21

Lab Sample ID: 400-139166-15

Date Collected: 06/06/17 15:58

Matrix: Water

Date Received: 06/12/17 14:27

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		0.0967	0.0977	1.00	0.126	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.162	U	0.318	0.319	1.00	0.540	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	92.0		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.312	U	0.333	0.333	5.00	0.540	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13222 FB-1

Lab Sample ID: 400-139166-16

Date Collected: 06/06/17 16:20

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.128		0.0854	0.0861	1.00	0.110	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.141	U	0.266	0.266	1.00	0.453	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	91.2		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.269	U	0.279	0.280	5.00	0.453	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13223 MW-14

Lab Sample ID: 400-139166-17

Date Collected: 06/07/17 09:50

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0536	U	0.0793	0.0795	1.00	0.136	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.166	U	0.250	0.250	1.00	0.479	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	90.5		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.113	U	0.262	0.262	5.00	0.479	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13224 MW-13

Lab Sample ID: 400-139166-18

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.151		0.0949	0.0958	1.00	0.122	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.168	U	0.258	0.258	1.00	0.435	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	89.0		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.320	U	0.275	0.276	5.00	0.435	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13225 MW-13 DUP

Lab Sample ID: 400-139166-19

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.211		0.100	0.102	1.00	0.107	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0464	U	0.391	0.391	1.00	0.677	pCi/L	06/20/17 09:07	06/28/17 14:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					06/20/17 09:07	06/28/17 14:26	1
Y Carrier	89.3		40 - 110					06/20/17 09:07	06/28/17 14:26	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.258	U	0.404	0.404	5.00	0.677	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13226 MW-12

Lab Sample ID: 400-139166-20

Date Collected: 06/07/17 13:52

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.300		0.125	0.128	1.00	0.128	pCi/L	06/20/17 08:33	07/12/17 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					06/20/17 08:33	07/12/17 06:05	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.429	U	0.355	0.357	1.00	0.565	pCi/L	06/20/17 09:07	06/28/17 14:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.7		40 - 110					06/20/17 09:07	06/28/17 14:28	1
Y Carrier	88.6		40 - 110					06/20/17 09:07	06/28/17 14:28	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.729		0.376	0.379	5.00	0.565	pCi/L		07/12/17 13:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13227 EB-1

Lab Sample ID: 400-139166-21

Date Collected: 06/07/17 14:30

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0110	U	0.0406	0.0406	1.00	0.0969	pCi/L	06/20/17 08:54	07/12/17 08:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					06/20/17 08:54	07/12/17 08:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0244	U	0.306	0.306	1.00	0.540	pCi/L	06/20/17 09:58	06/28/17 11:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					06/20/17 09:58	06/28/17 11:11	1
Y Carrier	84.9		40 - 110					06/20/17 09:58	06/28/17 11:11	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	0.0135	U	0.308	0.308	5.00	0.540	pCi/L		07/12/17 13:37	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
SDG: Gorgas Ash Pond (8)

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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13063 MW-18
Date Collected: 06/06/17 10:07
Date Received: 06/12/17 14:27

Lab Sample ID: 400-139166-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13064 MW-19
Date Collected: 06/06/17 11:35
Date Received: 06/12/17 14:27

Lab Sample ID: 400-139166-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13065 MW-19 DUP
Date Collected: 06/06/17 11:35
Date Received: 06/12/17 14:27

Lab Sample ID: 400-139166-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13066 MW-2
Date Collected: 06/06/17 13:20
Date Received: 06/12/17 14:27

Lab Sample ID: 400-139166-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13067 MW-6D

Lab Sample ID: 400-139166-5

Date Collected: 06/06/17 15:06

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13068 MW-6S

Lab Sample ID: 400-139166-6

Date Collected: 06/06/17 16:05

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13069 MW-7

Lab Sample ID: 400-139166-7

Date Collected: 06/07/17 09:00

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13070 MW-8

Lab Sample ID: 400-139166-8

Date Collected: 06/07/17 10:30

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13071 MW-9

Lab Sample ID: 400-139166-9

Date Collected: 06/07/17 12:34

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:02	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13072 MW-11

Lab Sample ID: 400-139166-10

Date Collected: 06/07/17 14:02

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:02	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13073 FB-2

Lab Sample ID: 400-139166-11

Date Collected: 06/07/17 14:40

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:02	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13218 MW-17

Lab Sample ID: 400-139166-12

Date Collected: 06/05/17 16:44

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 06:02	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13219 MW-15

Lab Sample ID: 400-139166-13

Date Collected: 06/06/17 11:10

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:04	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13220 MW-16D

Lab Sample ID: 400-139166-14

Date Collected: 06/06/17 13:13

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13221 MW-21

Lab Sample ID: 400-139166-15

Date Collected: 06/06/17 15:58

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13222 FB-1

Lab Sample ID: 400-139166-16

Date Collected: 06/06/17 16:20

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13223 MW-14

Lab Sample ID: 400-139166-17

Date Collected: 06/07/17 09:50

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13224 MW-13

Lab Sample ID: 400-139166-18

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13225 MW-13 DUP

Lab Sample ID: 400-139166-19

Date Collected: 06/07/17 11:50

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315638	06/28/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Client Sample ID: AX13226 MW-12

Lab Sample ID: 400-139166-20

Date Collected: 06/07/17 13:52

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314265	06/20/17 08:33	MBC	TAL SL
Total/NA	Analysis	9315		1	317003	07/12/17 06:05	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314269	06/20/17 09:07	LDE	TAL SL
Total/NA	Analysis	9320		1	315637	06/28/17 14:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	RTM	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
SDG: Gorgas Ash Pond (8)

Client Sample ID: AX13227 EB-1

Lab Sample ID: 400-139166-21

Date Collected: 06/07/17 14:30

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314266	06/20/17 08:54	MBC	TAL SL
Total/NA	Analysis	9315		1	316994	07/12/17 08:51	ALD	TAL SL
Total/NA	Prep	PrecSep_0			314280	06/20/17 09:58	LDE	TAL SL
Total/NA	Analysis	9320		1	315637	06/28/17 11:11	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317058	07/12/17 13:37	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Rad

Prep Batch: 314265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139166-1	AX13063 MW-18	Total/NA	Water	PrecSep-21	
400-139166-2	AX13064 MW-19	Total/NA	Water	PrecSep-21	
400-139166-3	AX13065 MW-19 DUP	Total/NA	Water	PrecSep-21	
400-139166-4	AX13066 MW-2	Total/NA	Water	PrecSep-21	
400-139166-5	AX13067 MW-6D	Total/NA	Water	PrecSep-21	
400-139166-6	AX13068 MW-6S	Total/NA	Water	PrecSep-21	
400-139166-7	AX13069 MW-7	Total/NA	Water	PrecSep-21	
400-139166-8	AX13070 MW-8	Total/NA	Water	PrecSep-21	
400-139166-9	AX13071 MW-9	Total/NA	Water	PrecSep-21	
400-139166-10	AX13072 MW-11	Total/NA	Water	PrecSep-21	
400-139166-11	AX13073 FB-2	Total/NA	Water	PrecSep-21	
400-139166-12	AX13218 MW-17	Total/NA	Water	PrecSep-21	
400-139166-13	AX13219 MW-15	Total/NA	Water	PrecSep-21	
400-139166-14	AX13220 MW-16D	Total/NA	Water	PrecSep-21	
400-139166-15	AX13221 MW-21	Total/NA	Water	PrecSep-21	
400-139166-16	AX13222 FB-1	Total/NA	Water	PrecSep-21	
400-139166-17	AX13223 MW-14	Total/NA	Water	PrecSep-21	
400-139166-18	AX13224 MW-13	Total/NA	Water	PrecSep-21	
400-139166-19	AX13225 MW-13 DUP	Total/NA	Water	PrecSep-21	
400-139166-20	AX13226 MW-12	Total/NA	Water	PrecSep-21	
MB 160-314265/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-314265/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139166-1 DU	AX13063 MW-18	Total/NA	Water	PrecSep-21	
400-139166-17 DU	AX13223 MW-14	Total/NA	Water	PrecSep-21	

Prep Batch: 314266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139166-21	AX13227 EB-1	Total/NA	Water	PrecSep-21	
MB 160-314266/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-314266/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-314266/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 314269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139166-1	AX13063 MW-18	Total/NA	Water	PrecSep_0	
400-139166-2	AX13064 MW-19	Total/NA	Water	PrecSep_0	
400-139166-3	AX13065 MW-19 DUP	Total/NA	Water	PrecSep_0	
400-139166-4	AX13066 MW-2	Total/NA	Water	PrecSep_0	
400-139166-5	AX13067 MW-6D	Total/NA	Water	PrecSep_0	
400-139166-6	AX13068 MW-6S	Total/NA	Water	PrecSep_0	
400-139166-7	AX13069 MW-7	Total/NA	Water	PrecSep_0	
400-139166-8	AX13070 MW-8	Total/NA	Water	PrecSep_0	
400-139166-9	AX13071 MW-9	Total/NA	Water	PrecSep_0	
400-139166-10	AX13072 MW-11	Total/NA	Water	PrecSep_0	
400-139166-11	AX13073 FB-2	Total/NA	Water	PrecSep_0	
400-139166-12	AX13218 MW-17	Total/NA	Water	PrecSep_0	
400-139166-13	AX13219 MW-15	Total/NA	Water	PrecSep_0	
400-139166-14	AX13220 MW-16D	Total/NA	Water	PrecSep_0	
400-139166-15	AX13221 MW-21	Total/NA	Water	PrecSep_0	
400-139166-16	AX13222 FB-1	Total/NA	Water	PrecSep_0	
400-139166-17	AX13223 MW-14	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
SDG: Gorgas Ash Pond (8)

Rad (Continued)

Prep Batch: 314269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139166-18	AX13224 MW-13	Total/NA	Water	PrecSep_0	
400-139166-19	AX13225 MW-13 DUP	Total/NA	Water	PrecSep_0	
400-139166-20	AX13226 MW-12	Total/NA	Water	PrecSep_0	
MB 160-314269/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-314269/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139166-1 DU	AX13063 MW-18	Total/NA	Water	PrecSep_0	
400-139166-17 DU	AX13223 MW-14	Total/NA	Water	PrecSep_0	

Prep Batch: 314280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139166-21	AX13227 EB-1	Total/NA	Water	PrecSep_0	
MB 160-314280/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-314280/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-314280/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-314265/1-A
Matrix: Water
Analysis Batch: 316994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314265

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03715	U	0.0659	0.0660	1.00	0.117	pCi/L	06/20/17 08:33	07/12/17 06:00	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	92.0					06/20/17 08:33	07/12/17 06:00	1		

Lab Sample ID: LCS 160-314265/2-A
Matrix: Water
Analysis Batch: 316994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314265

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	13.31		1.37	1.00	0.112	pCi/L	88	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	99.4					06/20/17 08:33	07/12/17 06:00	1	

Lab Sample ID: 400-139166-1 DU
Matrix: Water
Analysis Batch: 316994

Client Sample ID: AX13063 MW-18
Prep Type: Total/NA
Prep Batch: 314265

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0674	U	0.1325		0.0785	1.00	0.0936	pCi/L	0.42	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	98.2					06/20/17 08:33	07/12/17 06:00	1		

Lab Sample ID: 400-139166-17 DU
Matrix: Water
Analysis Batch: 317003

Client Sample ID: AX13223 MW-14
Prep Type: Total/NA
Prep Batch: 314265

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0536	U	0.1347		0.0955	1.00	0.133	pCi/L	0.46	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	98.8					06/20/17 08:33	07/12/17 06:00	1		

Lab Sample ID: MB 160-314266/1-A
Matrix: Water
Analysis Batch: 316993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314266

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.02156	U	0.0453	0.0453	1.00	0.0857	pCi/L	06/20/17 08:54	07/12/17 08:48	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

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

Lab Sample ID: MB 160-314266/1-A
Matrix: Water
Analysis Batch: 316993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314266

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits
Ba Carrier	92.6		40 - 110

Prepared	Analyzed	Dil Fac
06/20/17 08:54	07/12/17 08:48	1

Lab Sample ID: LCS 160-314266/2-A
Matrix: Water
Analysis Batch: 316993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314266

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	13.63		1.41	1.00	0.0965	pCi/L	90	68 - 137

Carrier	<i>LCS</i> %Yield	<i>LCS</i> Qualifier	Limits
Ba Carrier	90.6		40 - 110

Lab Sample ID: LCSD 160-314266/3-A
Matrix: Water
Analysis Batch: 316993

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 314266

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	15.1	13.67		1.42	1.00	0.127	pCi/L	90	68 - 137	0.02	1

Carrier	<i>LCSD</i> %Yield	<i>LCSD</i> Qualifier	Limits
Ba Carrier	93.8		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-314269/1-A
Matrix: Water
Analysis Batch: 315638

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314269

Analyte	<i>MB</i> Result	<i>MB</i> Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0000	U	0.253	0.253	1.00	0.457	pCi/L	06/20/17 09:07	06/28/17 14:24	1

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits
Ba Carrier	92.0		40 - 110
Y Carrier	89.0		40 - 110

Prepared	Analyzed	Dil Fac
06/20/17 09:07	06/28/17 14:24	1
06/20/17 09:07	06/28/17 14:24	1

Lab Sample ID: LCS 160-314269/2-A
Matrix: Water
Analysis Batch: 315638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314269

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.7	17.45		1.87	1.00	0.409	pCi/L	99	56 - 140

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-314269/2-A
Matrix: Water
Analysis Batch: 315638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314269

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	99.4		40 - 110
Y Carrier	91.2		40 - 110

Lab Sample ID: 400-139166-1 DU
Matrix: Water
Analysis Batch: 315638

Client Sample ID: AX13063 MW-18
Prep Type: Total/NA
Prep Batch: 314269

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.000	U	0.3576	U	0.281	1.00	0.440	pCi/L	0.66	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	98.2		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: 400-139166-17 DU
Matrix: Water
Analysis Batch: 315638

Client Sample ID: AX13223 MW-14
Prep Type: Total/NA
Prep Batch: 314269

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.166	U	0.05406	U	0.230	1.00	0.406	pCi/L	0.46	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	98.8		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: MB 160-314280/1-A
Matrix: Water
Analysis Batch: 315636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314280

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.03836	U	0.233	0.233	1.00	0.432	pCi/L	06/20/17 09:58	06/28/17 11:08	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110	06/20/17 09:58	06/28/17 11:08	1
Y Carrier	89.7		40 - 110	06/20/17 09:58	06/28/17 11:08	1

Lab Sample ID: LCS 160-314280/2-A
Matrix: Water
Analysis Batch: 315636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314280

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.7	23.83		2.53	1.00	0.544	pCi/L	135	56 - 140

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-314280/2-A
Matrix: Water
Analysis Batch: 315636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314280

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.6		40 - 110
Y Carrier	78.1		40 - 110

Lab Sample ID: LCSD 160-314280/3-A
Matrix: Water
Analysis Batch: 315636

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 314280

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									56 - 140	0.94	1	
Radium-228	17.7	19.49		2.09	1.00	0.590	pCi/L	110				

	LCSD	LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.8		40 - 110
Y Carrier	90.1		40 - 110

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

Lab Sample ID: 400-139166-1 DU
Matrix: Water
Analysis Batch: 317058

Client Sample ID: AX13063 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										0.75
Combined Radium 226 + 228	0.0674	U	0.4901		0.292	5.00	0.440	pCi/L		

Lab Sample ID: 400-139166-17 DU
Matrix: Water
Analysis Batch: 317058

Client Sample ID: AX13223 MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
									0.59	
Combined Radium 226 + 228	-0.113	U	0.1888	U	0.249	5.00	0.406	pCi/L		

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: Ben Rothschild		Lab PM: Whitmire, Chyenne R	
Client Contact: Sarah Copeland		Phone:		E-Mail: chyenme.whitmire@testamericainc.com	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Carrier Tracking No(s):	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		COC No: 400-56525-24537.1	
City: Calera		PO #:		Page: Page 1 of 2	
State, Zip: AL, 35040		WO #:		Job #: 400-139166	
Phone: 205-664-6121(Tel)		Project #:		Preservation Codes:	
Email: sgcopela@southernco.com		CCR		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 - EDTA Other:	
Site: Gorgas Ash Pond (8)		SSOW#:		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification		Sample Date		Sample Time	
AX13063		6/6/17		1007	
AX13064		6/6/17		1135	
AX13065		6/6/17		1135	
AX13066		6/6/17		1320	
AX13067		6/6/17		1506	
AX13068		6/6/17		1605	
AX13069		6/7/17		0900	
AX13070		6/7/17		1030	
AX13071		6/7/17		1234	
AX13072		6/7/17		1402	
AX13073		6/7/17		1440	
Possible Hazard Identification		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=other)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		G		Water	
Deliverable Requested: I, II, III, IV, Other (specify)		G		Water	
Empty Kit Relinquished by: Sarah Copeland		G		Water	
Relinquished by: Sarah Copeland		G		Water	
Relinquished by:		G		Water	
Relinquished by:		G		Water	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		G		Water	



Analysis Requested

Perform MS/MSD (Yes or No) Yes No

Field Filtered Sample (Yes or No) Yes No

Special Instructions/Note:

9315 Ra226, 9320 Ra228, Ra228, Ra226Ra228 GPPC

Total Number of containers: 3

Special Instructions/Note:

MW-18
MW-19
MW-19 Dup (Sample Duplicate)
MW-2
MW-6D
MW-6S
MW-7
MW-8
MW-9
MW-11
FB-2 (Field Blank)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Received by: [Signature] Date/Time: 6/12/17 14:07 Company: APC

Received by: [Signature] Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:



Chain of Custody Record

Client Information		Sampler: Jason Rouss		Lab P/M: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page 2 of 2		Job #: 400-139166	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Total Number of containers		Preservation Codes:	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDTA Z - other (specify)	
City: Callera		State, Zip: AL, 35040		PO #:		9315 Ra226, 9320 Ra228, Ra226Ra228 GPPC		Other:	
Phone: 205-664-6121(Tel)		WO #:		Project #:		D			
Email: sgcopela@southernco.com		Project Name: 40007143		SSOW#:					
Site: Gorgas Ash Pond (8)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Spill, On-site, Soil, etc.)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Spill, On-site, Soil, etc.)	
AX13218	6/5/17	1644	G	Water					
AX13219	6/6/17	1110	G	Water					
AX13220	6/6/17	1313	G	Water					
AX13221	6/6/17	1558	G	Water					
AX13222	6/6/17	1620	G	Water					
AX13223	6/7/17	0950	G	Water					
AX13224	6/7/17	1150	G	Water					
AX13225	6/7/17	1150	G	Water					
AX13226	6/7/17	1352	G	Water					
AX13227	6/7/17	1430	G	Water					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological									
Deliverable Requested: I, II, III, IV, Other (specify)									
Empty Kit Relinquished by: Sarah Copeland Date/Time: 06/12/2017: 1045 Company: APC									
Relinquished by: Sarah Copeland Date/Time: 6/17/17 1427 Company: JTA									
Relinquished by: Date/Time: Company:									
Relinquished by: Date/Time: Company:									
Custody Seals Intact: Δ Yes Δ No Cooler Temperature(s) °C and Other Remarks:									



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-139166-1
SDG Number: Gorgas Ash Pond (8)

Login Number: 139166

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
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 <math><6\text{mm}</math> (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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

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	09-01-17
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	10-09-17
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	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
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	06-30-18
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	06-30-18

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	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
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	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-139166-1
 SDG: Gorgas Ash Pond (8)

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.



Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Analytical Report

 Alabama Power



Sample Group : WMWGORAP_1110
Project/Site : Gorgas Ash Pond
Parrish, AL 35580
For : Southern Company Services
42 Inverness Center Parkway
Birmingham, AL 35242
Attention : Dustin Brooks & Greg Dyer
Released By : Sarah Copeland
sgcopela@southernco.com
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Gorgas Ash Pond

WMWGORAP_1110

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola, for analysis. Listed below is the job narrative provided by Test America.

Job Narrative
400-142503-1
General Chemistry

Method(s) SM 4500 F C: The matrix spike duplicate (MSD) recoveries for analytical batch 367273 were outside control limits. Non-homogeneity is 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: AX19841 MW-20 (400-142503-1), AX19842 MW-6D (400-142503-2), AX19843 MW-6S (400-142503-3), AX19844 MW-7 (400-142503-4), AX19848 MW-9 (400-142503-8), AX20032 MW-17 (400-142503-17), AX20034 MW-21 (400-142503-19), AX20035 MW-18 (400-142503-20), AX20035 MW-18 (400-142503-20[MS]) and AX20035 MW-18 (400-142503-20[MSD]). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 367158 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.



Metals ICP

Gorgas Ash Pond

WMWGORAP_1110

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX19841	20170908EK	WMWGORAP_1110
AX19842	20170908EK	WMWGORAP_1110
AX19843	20170908EK	WMWGORAP_1110
AX19844	20170908EK	WMWGORAP_1110
AX19845	20170908EK	WMWGORAP_1110
AX19846	20170908EK	WMWGORAP_1110
AX19847	20170908EK	WMWGORAP_1110
AX19848	20170908EK	WMWGORAP_1110
AX19849	20170908EK	WMWGORAP_1110
AX19850	20170908EK	WMWGORAP_1110
AX19851	20170908FK	WMWGORAP_1110
AX19852	20170908FK	WMWGORAP_1110
AX19853	20170908FK	WMWGORAP_1110
AX19854	20170908FK	WMWGORAP_1110
AX19855	20170908FK	WMWGORAP_1110
AX19856	20170908FK	WMWGORAP_1110
AX20032	20170908HK	WMWGORAP_1110
AX20033	20170908HK	WMWGORAP_1110
AX20034	20170908HK	WMWGORAP_1110
AX20035	20170908HK & 20170914D4k	WMWGORAP_1110
AX20036	20170908HK	WMWGORAP_1110

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. Sample AX20035 Calcium MDL and RL was revised to reflect current project limits. The result was not effected.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
8. All samples were analyzed at a x2 dilution to compensate for potential matrix effects. However, the following sample was further diluted due to analyzed sample concentration over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX20035	Calcium	x10

9. The raw data results include results corrected for dilution.



TDS

Gorgas Ash Pond

WMWGORAP_1110

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AX19841	601854	WMWGORAP_1110
AX19842	601854	WMWGORAP_1110
AX19843	601854	WMWGORAP_1110
AX19844	601854	WMWGORAP_1110
AX19845	601854	WMWGORAP_1110
AX19846	601854	WMWGORAP_1110
AX19847	601854	WMWGORAP_1110
AX19848	601854	WMWGORAP_1110
AX19849	601854	WMWGORAP_1110
AX19850	601854	WMWGORAP_1110
AX19851	601855	WMWGORAP_1110
AX19852	601855	WMWGORAP_1110
AX19853	601855	WMWGORAP_1110
AX19854	601855	WMWGORAP_1110
AX19855	601855	WMWGORAP_1110
AX19856	601855	WMWGORAP_1110
AX20032	601913	WMWGORAP_1110
AX20033	601913	WMWGORAP_1110
AX20034	601913	WMWGORAP_1110
AX20035	601913	WMWGORAP_1110
AX20036	601914	WMWGORAP_1110

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Case Narrative

 Alabama Power



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX19847, AX19856, and AX20036 which were below the 2.5 mg residue requirement.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX19841

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	0.102	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	0.634	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		50	416	mg/L
* Chloride, Total, by Test America	RRC	8/31/2017	SM 4500 Cl_E		1	0.60	2.00	12	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	1.4	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		2	2.80	10	55	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX19841

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AX19841

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX19842

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	0.906	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	47.3	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	289	mg/L
* Chloride, Total, by Test America	RRC	9/5/2017	SM 4500 Cl_E		1	0.60	2.00	6.1	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.15	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		2	2.80	10	35	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX19842

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AX19842

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX19843

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	1.05	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	63.5	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		50	524	mg/L
* Chloride, Total, by Test America	RRC	9/5/2017	SM 4500 Cl_E		1	0.60	2.00	21	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.10	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		10	14.0	50	260	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX19843

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AX19843

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX19844

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	1.39	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	12.6	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		50	362	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	4.7	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		5	7.00	25	140	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX19844

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AX19844

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX19845

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	3.38	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	91.3	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	3.6	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.9	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX19845

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AX19845

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-8DUP

Laboratory ID Number: AX19846

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	3.35	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	89.3	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	3.7	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.7	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-8DUP

Laboratory ID Number: AX19846

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-8DUP

Laboratory ID Number: AX19846

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX19847

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX19847

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 21-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX19847

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX19848

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	0.191	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	77.6	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		50	474	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	3.3	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.14	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		5	7.00	25	170	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX19848

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AX19848

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX19849

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	42.4	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	244	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	6.0	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.14	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	21	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX19849

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AX19849

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX19850

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	0.156	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	31.5	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	286	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.41	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	J 4.2	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX19850

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19850	Boron, Total	mg/L	0.00109	0.044	1.00	1.09	1.09	0.933	0.85 to 1.15	93.8	70 to 130	0.0466	20
AX19850	Calcium, Total	mg/L	0.00941	0.22	5.00	35.2	35.8	4.57	4.25 to 5.75	73.6	70 to 130	1.73	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AX19850

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19850	Solids, Dissolved	mg/L	7.00	25			288	46.0	40 to 60	0.348	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX19851

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	42.9	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	224	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.18	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	11	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX19851

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19856	Boron, Total	mg/L	0.000873	0.044	1.00	0.927	0.934	0.924	0.85 to 1.15	92.7	70 to 130	0.753	20
AX19856	Calcium, Total	mg/L	-0.000662	0.22	5.00	4.69	4.71	4.51	4.25 to 5.75	93.8	70 to 130	0.443	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AX19851

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19855	Solids, Dissolved	mg/L	7.00	25			296	46.0	40 to 60	0.509	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-13DUP

Laboratory ID Number: AX19852

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	43.2	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	228	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	3.3	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.17	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	11	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-13DUP

Laboratory ID Number: AX19852

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX19856	Calcium, Total	mg/L	-0.000662	0.22	5.00	4.69	4.71	4.51	4.25 to 5.75	93.8	70 to 130	0.443	20
AX19856	Boron, Total	mg/L	0.000873	0.044	1.00	0.927	0.934	0.924	0.85 to 1.15	92.7	70 to 130	0.753	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-13DUP

Laboratory ID Number: AX19852

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19855	Solids, Dissolved	mg/L	7.00	25			296	46.0	40 to 60	0.509	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX19853

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	35.3	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	243	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	5.9	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.17	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	12	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX19853

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19856	Calcium, Total	mg/L	-0.000662	0.22	5.00	4.69	4.71	4.51	4.25 to 5.75	93.8	70 to 130	0.443	20
AX19856	Boron, Total	mg/L	0.000873	0.044	1.00	0.927	0.934	0.924	0.85 to 1.15	92.7	70 to 130	0.753	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AX19853

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19855	Solids, Dissolved	mg/L	7.00	25			296	46.0	40 to 60	0.509	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX19854

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	J 0.0246	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	30.9	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	230	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.11	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	12	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX19854

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX19856	Boron, Total	mg/L	0.000873	0.044	1.00	0.927	0.934	0.924	0.85 to 1.15	92.7	70 to 130	0.753	20
AX19856	Calcium, Total	mg/L	-0.000662	0.22	5.00	4.69	4.71	4.51	4.25 to 5.75	93.8	70 to 130	0.443	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AX19854

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX19855	Solids, Dissolved	mg/L	7.00	25			296	46.0	40 to 60	0.509	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX19855

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	J 0.0294	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	40.7	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	293	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	0.35	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	5.3	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX19855

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19856	Boron, Total	mg/L	0.000873	0.044	1.00	0.927	0.934	0.924	0.85 to 1.15	92.7	70 to 130	0.753	20
AX19856	Calcium, Total	mg/L	-0.000662	0.22	5.00	4.69	4.71	4.51	4.25 to 5.75	93.8	70 to 130	0.443	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AX19855

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX19855	Solids, Dissolved	mg/L	7.00	25			296	46.0	40 to 60	0.509	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX19856

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/28/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	RRC	9/8/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX19856

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX19856	Boron, Total	mg/L	0.000873	0.044	1.00	0.927	0.934	0.924	0.85 to 1.15	92.7	70 to 130	0.753	20
AX19856	Calcium, Total	mg/L	-0.000662	0.22	5.00	4.69	4.71	4.51	4.25 to 5.75	93.8	70 to 130	0.443	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPFB
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 23-Aug-17

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AX19856

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19855	Solids, Dissolved	mg/L	7.00	25			296	46.0	40 to 60	0.509	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX20032

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	J 0.0786	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	3.52	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/29/2017	SM 2540C		1		50	500	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	12	mg/L
* Fluoride, Total, by Test America	RRC	9/12/2017	SM 4500 F_C		1	0.032	0.10	0.24	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		2	2.80	10	42	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX20032

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX20036	Boron, Total	mg/L	0.000928	0.044	1.00	0.927	0.929	0.930	0.85 to 1.15	92.7	70 to 130	0.173	20
AX20036	Calcium, Total	mg/L	0.00359	0.22	5.00	4.76	4.74	4.62	4.25 to 5.75	95.3	70 to 130	0.552	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AX20032

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19998	Solids, Dissolved	mg/L	5.00	25			1100	51.0	40 to 60	2.84	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX20033

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	J 0.0702	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	6.89	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/29/2017	SM 2540C		1		50	364	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	5.3	mg/L
* Fluoride, Total, by Test America	RRC	9/12/2017	SM 4500 F_C		1	0.032	0.10	0.90	mg/L
* Sulfate, Total, by Test America	BAB	9/6/2017	SM 4500 SO4_E		1	1.40	5.00	22	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX20033

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX20036	Calcium, Total	mg/L	0.00359	0.22	5.00	4.76	4.74	4.62	4.25 to 5.75	95.3	70 to 130	0.552	20
AX20036	Boron, Total	mg/L	0.000928	0.044	1.00	0.927	0.929	0.930	0.85 to 1.15	92.7	70 to 130	0.173	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 22-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AX20033

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX19998	Solids, Dissolved	mg/L	5.00	25			1100	51.0	40 to 60	2.84	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX20034

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	J 0.0764	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	6.60	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/29/2017	SM 2540C		1		100	508	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	29	mg/L
* Fluoride, Total, by Test America	RRC	9/12/2017	SM 4500 F_C		1	0.032	0.10	0.30	mg/L
* Sulfate, Total, by Test America	BAB	9/7/2017	SM 4500 SO4_E		2	2.80	10	43	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX20034

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX20036	Boron, Total	mg/L	0.000928	0.044	1.00	0.927	0.929	0.930	0.85 to 1.15	92.7	70 to 130	0.173	20
AX20036	Calcium, Total	mg/L	0.00359	0.22	5.00	4.76	4.74	4.62	4.25 to 5.75	95.3	70 to 130	0.552	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AX20034

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec		
			Limit	Limit			Duplicate	LFB	Limit	Limit		
AX19998	Solids, Dissolved	mg/L	5.00	25			1100	51.0	40 to 60		2.84	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX20035

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	1.71	mg/L
* Calcium, Total	HRG	9/14/2017	EPA 200.7		10	1.0	5.0	153	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/29/2017	SM 2540C		1		100	1020	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	31	mg/L
* Fluoride, Total, by Test America	RRC	9/12/2017	SM 4500 F_C		1	0.032	0.10	0.34	mg/L
* Sulfate, Total, by Test America	BAB	9/7/2017	SM 4500 SO4_E		20	28.0	100	560	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX20035

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX20036	Boron, Total	mg/L	0.000928	0.044	1.00	0.927	0.929	0.930	0.85 to 1.15	92.7	70 to 130	0.173	20
AX20036	Calcium, Total	mg/L	0.00359	0.22	5.00	4.76	4.74	4.62	4.25 to 5.75	95.3	70 to 130	0.552	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAP
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AX20035

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
				Limit			Duplicate	LFB	Limit	Prec	
AX20035	Solids, Dissolved	mg/L	5.00	25			1030	51.0	40 to 60	0.389	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX20036

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/8/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	8/29/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/7/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	RRC	9/12/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	BAB	9/7/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX20036

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX20036	Boron, Total	mg/L	0.000928	0.044	1.00	0.927	0.929	0.930	0.85 to 1.15	92.7	70 to 130	0.173	20
AX20036	Calcium, Total	mg/L	0.00359	0.22	5.00	4.76	4.74	4.62	4.25 to 5.75	95.3	70 to 130	0.552	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGORAPEB
 Sample Date: 23-Aug-17
 Customer ID:
 Delivery Date: 24-Aug-17

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AX20036

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX20035	Solids, Dissolved	mg/L	5.00	25			1030	51.0	40 to 60	0.389	5

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LFB	Lab Fortified Blank
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 08/23/2017 07:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (500mL) TDS, Bottle 3 (250mL) Anions		
Comments	All anions outsourced to Test America.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	08/21/2017	10:58	3	Groundwater		AX19841
MW-6D	08/21/2017	12:38	3	Groundwater		AX19842
MW-6S	08/21/2017	13:24	3	Groundwater		AX19843
MW-7	08/21/2017	14:50	3	Groundwater		AX19844
MW-8	08/21/2017	16:15	3	Groundwater		AX19845
MW-8DUP	08/21/2017	16:15	3	Sample Duplicate		AX19846
FB-1	08/21/2017	15:45	3	Field Blank		AX19847
MW-9	08/22/2017	09:00	3	Groundwater		AX19848
MW-11	08/22/2017	10:15	3	Groundwater		AX19849
MW-12	08/22/2017	12:32	3	Groundwater		AX19850
MW-13	08/22/2017	13:38	3	Groundwater		AX19851
MW-13DUP	08/22/2017	13:38	3	Sample Duplicate		AX19852
MW-14	08/22/2017	15:13	3	Groundwater		AX19853
MW-16D	08/22/2017	17:58	3	Groundwater		AX19854
MW-19	08/22/2017	19:35	3	Groundwater		AX19855
FB-2	08/22/2017	10:28	3	Field Blank		AX19856

Relinquished By	Received By	Date/Time
	Keith Kornegay <small>Digitally signed by Keith Kornegay DN: cn=Keith Kornegay, o=Alabama Power Company, ou=Environmental Affairs, email=kkornegay@southernco.com, c=US Date: 2017.08.23 08:40:08 -0500</small>	08/23/2017 08:40

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20009-2-1	Cooler Temp	0.6 degrees C
		Thermometer ID	2403-7026-4-2
		pH Strip ID	6213-32463-20-9

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: 400-142503-1

TestAmerica Sample Delivery Group: Plant Gorgas Ash Pond

Client Project/Site: CCR Plant Gorgas

Revision: 2

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

10/13/2017 9:15:53 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



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.

1

2

3

4

5

6

7

8

9

10

11

12

13

14



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	13
Chronicle	14
QC Association	19
QC Sample Results	22
Chain of Custody	28
Receipt Checklists	30
Certification Summary	31

Case Narrative

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Job ID: 400-142503-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-142503-1

General Chemistry

Method(s) SM 4500 F C: The matrix spike duplicate (MSD) recoveries for analytical batch 367273 were outside control limits. Non-homogeneity is 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: AX19841 MW-20 (400-142503-1), AX19842 MW-6D (400-142503-2), AX19843 MW-6S (400-142503-3), AX19844 MW-7 (400-142503-4), AX19848 MW-9 (400-142503-8), AX20032 MW-17 (400-142503-17), AX20034 MW-21 (400-142503-19), AX20035 MW-18 (400-142503-20), AX20035 MW-18 (400-142503-20[MS]) and AX20035 MW-18 (400-142503-20[MSD]). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 367158 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: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19841 MW-2

Lab Sample ID: 400-142503-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	1.4		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	55		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19842 MW-6D

Lab Sample ID: 400-142503-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.1		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	35		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19843 MW-6S

Lab Sample ID: 400-142503-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	260		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19844 MW-7

Lab Sample ID: 400-142503-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	140		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19845 MW-8

Lab Sample ID: 400-142503-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19846 MW-8DUP

Lab Sample ID: 400-142503-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19847 FB-1

Lab Sample ID: 400-142503-7

No Detections.

Client Sample ID: AX19848 MW-9

Lab Sample ID: 400-142503-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19849 MW-11

Lab Sample ID: 400-142503-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		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

Client Sample ID: AX19850 MW-12

Lab Sample ID: 400-142503-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.41	F2	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	4.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19851 MW-13

Lab Sample ID: 400-142503-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.18		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19852 MW-13DUP

Lab Sample ID: 400-142503-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.17		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19853 MW-14

Lab Sample ID: 400-142503-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.17		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19854 MW-16D

Lab Sample ID: 400-142503-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		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	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19855 MW-19

Lab Sample ID: 400-142503-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.35		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX19856 FB-2

Lab Sample ID: 400-142503-16

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Client Sample ID: AX20032 MW-17

Lab Sample ID: 400-142503-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.24		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	42		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20033 MW-15

Lab Sample ID: 400-142503-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.90		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	22		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20034 MW-21

Lab Sample ID: 400-142503-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.30		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	43		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20035 MW-18

Lab Sample ID: 400-142503-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.34		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	560	F1	100	28	mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20036 EB-1

Lab Sample ID: 400-142503-21

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Method	Method Description	Protocol	Laboratory
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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-142503-1	AX19841 MW-2	Water	08/21/17 10:58	08/29/17 09:40
400-142503-2	AX19842 MW-6D	Water	08/21/17 12:38	08/29/17 09:40
400-142503-3	AX19843 MW-6S	Water	08/21/17 13:24	08/29/17 09:40
400-142503-4	AX19844 MW-7	Water	08/21/17 14:50	08/29/17 09:40
400-142503-5	AX19845 MW-8	Water	08/21/17 16:15	08/29/17 09:40
400-142503-6	AX19846 MW-8DUP	Water	08/21/17 16:15	08/29/17 09:40
400-142503-7	AX19847 FB-1	Water	08/21/17 15:45	08/29/17 09:40
400-142503-8	AX19848 MW-9	Water	08/22/17 09:00	08/29/17 09:40
400-142503-9	AX19849 MW-11	Water	08/22/17 10:15	08/29/17 09:40
400-142503-10	AX19850 MW-12	Water	08/22/17 12:32	08/29/17 09:40
400-142503-11	AX19851 MW-13	Water	08/22/17 13:38	08/29/17 09:40
400-142503-12	AX19852 MW-13DUP	Water	08/22/17 13:38	08/29/17 09:40
400-142503-13	AX19853 MW-14	Water	08/22/17 15:13	08/29/17 09:40
400-142503-14	AX19854 MW-16D	Water	08/22/17 17:58	08/29/17 09:40
400-142503-15	AX19855 MW-19	Water	08/22/17 19:35	08/29/17 09:40
400-142503-16	AX19856 FB-2	Water	08/22/17 10:28	08/29/17 09:40
400-142503-17	AX20032 MW-17	Water	08/22/17 12:12	08/29/17 09:40
400-142503-18	AX20033 MW-15	Water	08/22/17 15:35	08/29/17 09:40
400-142503-19	AX20034 MW-21	Water	08/23/17 12:50	08/29/17 09:40
400-142503-20	AX20035 MW-18	Water	08/23/17 14:10	08/29/17 09:40
400-142503-21	AX20036 EB-1	Water	08/23/17 13:10	08/29/17 09:40

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19841 MW-2

Lab Sample ID: 400-142503-1

Date Collected: 08/21/17 10:58

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		2.0	0.60	mg/L			08/31/17 13:36	1
Fluoride	1.4		0.10	0.032	mg/L			09/08/17 11:06	1
Sulfate	55		10	2.8	mg/L			09/06/17 13:00	2

Client Sample ID: AX19842 MW-6D

Lab Sample ID: 400-142503-2

Date Collected: 08/21/17 12:38

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.1		2.0	0.60	mg/L			09/05/17 10:12	1
Fluoride	0.15		0.10	0.032	mg/L			09/08/17 11:07	1
Sulfate	35		10	2.8	mg/L			09/06/17 12:43	2

Client Sample ID: AX19843 MW-6S

Lab Sample ID: 400-142503-3

Date Collected: 08/21/17 13:24

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.0	0.60	mg/L			09/05/17 10:34	1
Fluoride	0.10		0.10	0.032	mg/L			09/08/17 11:09	1
Sulfate	260		50	14	mg/L			09/06/17 12:43	10

Client Sample ID: AX19844 MW-7

Lab Sample ID: 400-142503-4

Date Collected: 08/21/17 14:50

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	0.090	J	0.10	0.032	mg/L			09/08/17 11:11	1
Sulfate	140		25	7.0	mg/L			09/06/17 13:00	5

Client Sample ID: AX19845 MW-8

Lab Sample ID: 400-142503-5

Date Collected: 08/21/17 16:15

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	0.080	J	0.10	0.032	mg/L			09/08/17 11:13	1
Sulfate	3.9	J	5.0	1.4	mg/L			09/06/17 12:17	1

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19846 MW-8DUP

Lab Sample ID: 400-142503-6

Date Collected: 08/21/17 16:15

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	0.080	J	0.10	0.032	mg/L			09/08/17 11:16	1
Sulfate	3.7	J	5.0	1.4	mg/L			09/06/17 12:18	1

Client Sample ID: AX19847 FB-1

Lab Sample ID: 400-142503-7

Date Collected: 08/21/17 15:45

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	<0.032		0.10	0.032	mg/L			09/08/17 11:18	1
Sulfate	<1.4		5.0	1.4	mg/L			09/06/17 12:18	1

Client Sample ID: AX19848 MW-9

Lab Sample ID: 400-142503-8

Date Collected: 08/22/17 09:00

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	0.14		0.10	0.032	mg/L			09/08/17 11:31	1
Sulfate	170		25	7.0	mg/L			09/06/17 13:15	5

Client Sample ID: AX19849 MW-11

Lab Sample ID: 400-142503-9

Date Collected: 08/22/17 10:15

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	0.14		0.10	0.032	mg/L			09/08/17 11:33	1
Sulfate	21		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX19850 MW-12

Lab Sample ID: 400-142503-10

Date Collected: 08/22/17 12:32

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			09/07/17 08:40	1
Fluoride	0.41	F2	0.10	0.032	mg/L			09/08/17 11:00	1
Sulfate	4.2	J	5.0	1.4	mg/L			09/06/17 12:16	1

Client Sample ID: AX19851 MW-13

Lab Sample ID: 400-142503-11

Date Collected: 08/22/17 13:38

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			09/07/17 08:40	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19851 MW-13

Lab Sample ID: 400-142503-11

Date Collected: 08/22/17 13:38

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.18		0.10	0.032	mg/L			09/08/17 11:35	1
Sulfate	11		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX19852 MW-13DUP

Lab Sample ID: 400-142503-12

Date Collected: 08/22/17 13:38

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			09/07/17 08:41	1
Fluoride	0.17		0.10	0.032	mg/L			09/08/17 11:37	1
Sulfate	11		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX19853 MW-14

Lab Sample ID: 400-142503-13

Date Collected: 08/22/17 15:13

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.9		2.0	0.60	mg/L			09/07/17 08:41	1
Fluoride	0.17		0.10	0.032	mg/L			09/08/17 11:39	1
Sulfate	12		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX19854 MW-16D

Lab Sample ID: 400-142503-14

Date Collected: 08/22/17 17:58

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	0.11		0.10	0.032	mg/L			09/08/17 11:26	1
Sulfate	12		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX19855 MW-19

Lab Sample ID: 400-142503-15

Date Collected: 08/22/17 19:35

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	0.35		0.10	0.032	mg/L			09/08/17 11:41	1
Sulfate	5.3		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX19856 FB-2

Lab Sample ID: 400-142503-16

Date Collected: 08/22/17 10:28

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	<0.032		0.10	0.032	mg/L			09/08/17 11:44	1

TestAmerica Pensacola

Client Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19856 FB-2

Lab Sample ID: 400-142503-16

Date Collected: 08/22/17 10:28

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			09/06/17 12:37	1

Client Sample ID: AX20032 MW-17

Lab Sample ID: 400-142503-17

Date Collected: 08/22/17 12:12

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	0.24		0.10	0.032	mg/L			09/12/17 08:37	1
Sulfate	42		10	2.8	mg/L			09/06/17 13:02	2

Client Sample ID: AX20033 MW-15

Lab Sample ID: 400-142503-18

Date Collected: 08/22/17 15:35

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	0.90		0.10	0.032	mg/L			09/12/17 08:42	1
Sulfate	22		5.0	1.4	mg/L			09/06/17 12:39	1

Client Sample ID: AX20034 MW-21

Lab Sample ID: 400-142503-19

Date Collected: 08/23/17 12:50

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	0.30		0.10	0.032	mg/L			09/12/17 08:45	1
Sulfate	43		10	2.8	mg/L			09/07/17 14:15	2

Client Sample ID: AX20035 MW-18

Lab Sample ID: 400-142503-20

Date Collected: 08/23/17 14:10

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		2.0	0.60	mg/L			09/07/17 10:02	1
Fluoride	0.34		0.10	0.032	mg/L			09/12/17 08:09	1
Sulfate	560	F1	100	28	mg/L			09/07/17 14:38	20

Client Sample ID: AX20036 EB-1

Lab Sample ID: 400-142503-21

Date Collected: 08/23/17 13:10

Matrix: Water

Date Received: 08/29/17 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/07/17 08:54	1
Fluoride	<0.032		0.10	0.032	mg/L			09/12/17 08:47	1
Sulfate	<1.4		5.0	1.4	mg/L			09/07/17 13:52	1

TestAmerica Pensacola

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19841 MW-2

Lab Sample ID: 400-142503-1

Date Collected: 08/21/17 10:58

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	366412	08/31/17 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:06	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	366969	09/06/17 13:00	RRC	TAL PEN

Client Sample ID: AX19842 MW-6D

Lab Sample ID: 400-142503-2

Date Collected: 08/21/17 12:38

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	366820	09/05/17 10:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:07	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	366969	09/06/17 12:43	RRC	TAL PEN

Client Sample ID: AX19843 MW-6S

Lab Sample ID: 400-142503-3

Date Collected: 08/21/17 13:24

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	366820	09/05/17 10:34	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:09	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	366969	09/06/17 12:43	RRC	TAL PEN

Client Sample ID: AX19844 MW-7

Lab Sample ID: 400-142503-4

Date Collected: 08/21/17 14:50

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:11	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	366969	09/06/17 13:00	RRC	TAL PEN

Client Sample ID: AX19845 MW-8

Lab Sample ID: 400-142503-5

Date Collected: 08/21/17 16:15

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:13	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:17	RRC	TAL PEN

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19846 MW-8DUP

Lab Sample ID: 400-142503-6

Date Collected: 08/21/17 16:15

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:16	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:18	RRC	TAL PEN

Client Sample ID: AX19847 FB-1

Lab Sample ID: 400-142503-7

Date Collected: 08/21/17 15:45

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:18	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:18	RRC	TAL PEN

Client Sample ID: AX19848 MW-9

Lab Sample ID: 400-142503-8

Date Collected: 08/22/17 09:00

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:31	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	366969	09/06/17 13:15	RRC	TAL PEN

Client Sample ID: AX19849 MW-11

Lab Sample ID: 400-142503-9

Date Collected: 08/22/17 10:15

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:33	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

Client Sample ID: AX19850 MW-12

Lab Sample ID: 400-142503-10

Date Collected: 08/22/17 12:32

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:16	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19851 MW-13

Lab Sample ID: 400-142503-11

Date Collected: 08/22/17 13:38

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:40	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:35	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

Client Sample ID: AX19852 MW-13DUP

Lab Sample ID: 400-142503-12

Date Collected: 08/22/17 13:38

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

Client Sample ID: AX19853 MW-14

Lab Sample ID: 400-142503-13

Date Collected: 08/22/17 15:13

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

Client Sample ID: AX19854 MW-16D

Lab Sample ID: 400-142503-14

Date Collected: 08/22/17 17:58

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:26	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

Client Sample ID: AX19855 MW-19

Lab Sample ID: 400-142503-15

Date Collected: 08/22/17 19:35

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Client Sample ID: AX19856 FB-2

Lab Sample ID: 400-142503-16

Date Collected: 08/22/17 10:28

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367273	09/08/17 11:44	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:37	RRC	TAL PEN

Client Sample ID: AX20032 MW-17

Lab Sample ID: 400-142503-17

Date Collected: 08/22/17 12:12

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367615	09/12/17 08:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	366969	09/06/17 13:02	RRC	TAL PEN

Client Sample ID: AX20033 MW-15

Lab Sample ID: 400-142503-18

Date Collected: 08/22/17 15:35

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367615	09/12/17 08:42	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	366969	09/06/17 12:39	RRC	TAL PEN

Client Sample ID: AX20034 MW-21

Lab Sample ID: 400-142503-19

Date Collected: 08/23/17 12:50

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367615	09/12/17 08:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	367158	09/07/17 14:15	RRC	TAL PEN

Client Sample ID: AX20035 MW-18

Lab Sample ID: 400-142503-20

Date Collected: 08/23/17 14:10

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367092	09/07/17 10:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367615	09/12/17 08:09	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	367158	09/07/17 14:38	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

Client Sample ID: AX20036 EB-1

Lab Sample ID: 400-142503-21

Date Collected: 08/23/17 13:10

Matrix: Water

Date Received: 08/29/17 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	367054	09/07/17 08:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	367615	09/12/17 08:47	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	367158	09/07/17 13:52	RRC	TAL PEN

Laboratory References:

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

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

General Chemistry

Analysis Batch: 366412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-1	AX19841 MW-2	Total/NA	Water	SM 4500 Cl- E	
MB 400-366412/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-366412/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-366412/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-142388-B-50 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-142388-B-50 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 366820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-2	AX19842 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-142503-3	AX19843 MW-6S	Total/NA	Water	SM 4500 Cl- E	
MB 400-366820/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-366820/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-366820/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-142503-2 MS	AX19842 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-142503-2 MSD	AX19842 MW-6D	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 366969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-1	AX19841 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-142503-2	AX19842 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-142503-3	AX19843 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-142503-4	AX19844 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-142503-5	AX19845 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-142503-6	AX19846 MW-8DUP	Total/NA	Water	SM 4500 SO4 E	
400-142503-7	AX19847 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-142503-8	AX19848 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-142503-9	AX19849 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-142503-10	AX19850 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-142503-11	AX19851 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-142503-12	AX19852 MW-13DUP	Total/NA	Water	SM 4500 SO4 E	
400-142503-13	AX19853 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-142503-14	AX19854 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-142503-15	AX19855 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-142503-16	AX19856 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-142503-17	AX20032 MW-17	Total/NA	Water	SM 4500 SO4 E	
400-142503-18	AX20033 MW-15	Total/NA	Water	SM 4500 SO4 E	
MB 400-366969/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-366969/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-366969/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-142503-10 MS	AX19850 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-142503-10 MSD	AX19850 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-142503-14 MS	AX19854 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-142503-14 MSD	AX19854 MW-16D	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 367054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-4	AX19844 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-142503-5	AX19845 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-142503-6	AX19846 MW-8DUP	Total/NA	Water	SM 4500 Cl- E	
400-142503-7	AX19847 FB-1	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

General Chemistry (Continued)

Analysis Batch: 367054 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-8	AX19848 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-142503-9	AX19849 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-142503-10	AX19850 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-142503-11	AX19851 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-142503-12	AX19852 MW-13DUP	Total/NA	Water	SM 4500 Cl- E	
400-142503-13	AX19853 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-142503-14	AX19854 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-142503-15	AX19855 MW-19	Total/NA	Water	SM 4500 Cl- E	
400-142503-16	AX19856 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-142503-17	AX20032 MW-17	Total/NA	Water	SM 4500 Cl- E	
400-142503-18	AX20033 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-142503-19	AX20034 MW-21	Total/NA	Water	SM 4500 Cl- E	
400-142503-21	AX20036 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-367054/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-367054/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-367054/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-142503-10 MS	AX19850 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-142503-10 MSD	AX19850 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-142503-14 MS	AX19854 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-142503-14 MSD	AX19854 MW-16D	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 367092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-20	AX20035 MW-18	Total/NA	Water	SM 4500 Cl- E	
MB 400-367092/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-367092/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-367092/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-142503-20 MS	AX20035 MW-18	Total/NA	Water	SM 4500 Cl- E	
400-142503-20 MSD	AX20035 MW-18	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 367158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-19	AX20034 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-142503-20	AX20035 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-142503-21	AX20036 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-367158/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-367158/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-367158/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-142503-20 MS	AX20035 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-142503-20 MSD	AX20035 MW-18	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 367273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-1	AX19841 MW-2	Total/NA	Water	SM 4500 F C	
400-142503-2	AX19842 MW-6D	Total/NA	Water	SM 4500 F C	
400-142503-3	AX19843 MW-6S	Total/NA	Water	SM 4500 F C	
400-142503-4	AX19844 MW-7	Total/NA	Water	SM 4500 F C	
400-142503-5	AX19845 MW-8	Total/NA	Water	SM 4500 F C	
400-142503-6	AX19846 MW-8DUP	Total/NA	Water	SM 4500 F C	
400-142503-7	AX19847 FB-1	Total/NA	Water	SM 4500 F C	
400-142503-8	AX19848 MW-9	Total/NA	Water	SM 4500 F C	

TestAmerica Pensacola

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
SDG: Plant Gorgas Ash Pond

General Chemistry (Continued)

Analysis Batch: 367273 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-9	AX19849 MW-11	Total/NA	Water	SM 4500 F C	
400-142503-10	AX19850 MW-12	Total/NA	Water	SM 4500 F C	
400-142503-11	AX19851 MW-13	Total/NA	Water	SM 4500 F C	
400-142503-12	AX19852 MW-13DUP	Total/NA	Water	SM 4500 F C	
400-142503-13	AX19853 MW-14	Total/NA	Water	SM 4500 F C	
400-142503-14	AX19854 MW-16D	Total/NA	Water	SM 4500 F C	
400-142503-15	AX19855 MW-19	Total/NA	Water	SM 4500 F C	
400-142503-16	AX19856 FB-2	Total/NA	Water	SM 4500 F C	
MB 400-367273/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-367273/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-142503-10 MS	AX19850 MW-12	Total/NA	Water	SM 4500 F C	
400-142503-10 MSD	AX19850 MW-12	Total/NA	Water	SM 4500 F C	
400-142503-14 MS	AX19854 MW-16D	Total/NA	Water	SM 4500 F C	
400-142503-14 MSD	AX19854 MW-16D	Total/NA	Water	SM 4500 F C	

Analysis Batch: 367615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-142503-17	AX20032 MW-17	Total/NA	Water	SM 4500 F C	
400-142503-18	AX20033 MW-15	Total/NA	Water	SM 4500 F C	
400-142503-19	AX20034 MW-21	Total/NA	Water	SM 4500 F C	
400-142503-20	AX20035 MW-18	Total/NA	Water	SM 4500 F C	
400-142503-21	AX20036 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-367615/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-367615/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-142503-20 MS	AX20035 MW-18	Total/NA	Water	SM 4500 F C	
400-142503-20 MSD	AX20035 MW-18	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-366412/6
Matrix: Water
Analysis Batch: 366412

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			08/31/17 12:42	1

Lab Sample ID: LCS 400-366412/7
Matrix: Water
Analysis Batch: 366412

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 400-366412/3
Matrix: Water
Analysis Batch: 366412

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	2.09		mg/L		104	50 - 150

Lab Sample ID: 400-142388-B-50 MS
Matrix: Water
Analysis Batch: 366412

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	14.9		mg/L		102	73 - 120

Lab Sample ID: 400-142388-B-50 MSD
Matrix: Water
Analysis Batch: 366412

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	Limit
Chloride	4.7		10.0	14.8		mg/L		101	73 - 120	1	8

Lab Sample ID: MB 400-366820/6
Matrix: Water
Analysis Batch: 366820

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/05/17 09:51	1

Lab Sample ID: LCS 400-366820/7
Matrix: Water
Analysis Batch: 366820

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	30.2		mg/L		101	90 - 110

Lab Sample ID: MRL 400-366820/3
Matrix: Water
Analysis Batch: 366820

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

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Lab Sample ID: 400-142503-2 MS
Matrix: Water
Analysis Batch: 366820

Client Sample ID: AX19842 MW-6D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.1		10.0	17.1		mg/L		110	73 - 120

Lab Sample ID: 400-142503-2 MSD
Matrix: Water
Analysis Batch: 366820

Client Sample ID: AX19842 MW-6D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	6.1		10.0	17.0		mg/L		109	73 - 120	1	8

Lab Sample ID: MB 400-367054/6
Matrix: Water
Analysis Batch: 367054

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<0.60		2.0	0.60	mg/L			09/07/17 08:24		1

Lab Sample ID: LCS 400-367054/7
Matrix: Water
Analysis Batch: 367054

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	29.7		mg/L		99	90 - 110

Lab Sample ID: MRL 400-367054/3
Matrix: Water
Analysis Batch: 367054

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	J	mg/L		99	50 - 150

Lab Sample ID: 400-142503-10 MS
Matrix: Water
Analysis Batch: 367054

Client Sample ID: AX19850 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.5		10.0	15.9		mg/L		94	73 - 120

Lab Sample ID: 400-142503-10 MSD
Matrix: Water
Analysis Batch: 367054

Client Sample ID: AX19850 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	6.5		10.0	15.4		mg/L		89	73 - 120	3	8

Lab Sample ID: 400-142503-14 MS
Matrix: Water
Analysis Batch: 367054

Client Sample ID: AX19854 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.9		10.0	11.3		mg/L		84	73 - 120

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

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

Lab Sample ID: 400-142503-14 MSD
Matrix: Water
Analysis Batch: 367054

Client Sample ID: AX19854 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.9		10.0	11.8		mg/L		89	73 - 120	4	8

Lab Sample ID: MB 400-367092/6
Matrix: Water
Analysis Batch: 367092

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/07/17 09:46	1

Lab Sample ID: LCS 400-367092/7
Matrix: Water
Analysis Batch: 367092

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 400-367092/3
Matrix: Water
Analysis Batch: 367092

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	J	mg/L		99	50 - 150

Lab Sample ID: 400-142503-20 MS
Matrix: Water
Analysis Batch: 367092

Client Sample ID: AX20035 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	31		10.0	39.2		mg/L		78	73 - 120

Lab Sample ID: 400-142503-20 MSD
Matrix: Water
Analysis Batch: 367092

Client Sample ID: AX20035 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	31		10.0	39.1		mg/L		77	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-367273/3
Matrix: Water
Analysis Batch: 367273

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			09/08/17 10:52	1

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-367273/4
Matrix: Water
Analysis Batch: 367273

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	4.18		mg/L		105	90 - 110

Lab Sample ID: 400-142503-10 MS
Matrix: Water
Analysis Batch: 367273

Client Sample ID: AX19850 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.41	F2	1.00	1.52		mg/L		111	75 - 125

Lab Sample ID: 400-142503-10 MSD
Matrix: Water
Analysis Batch: 367273

Client Sample ID: AX19850 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.41	F2	1.00	1.64	F2	mg/L		123	75 - 125	8	4

Lab Sample ID: 400-142503-14 MS
Matrix: Water
Analysis Batch: 367273

Client Sample ID: AX19854 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.11		1.00	1.29		mg/L		118	75 - 125

Lab Sample ID: 400-142503-14 MSD
Matrix: Water
Analysis Batch: 367273

Client Sample ID: AX19854 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.11		1.00	1.29		mg/L		118	75 - 125	0	4

Lab Sample ID: MB 400-367615/3
Matrix: Water
Analysis Batch: 367615

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			09/12/17 07:53	1

Lab Sample ID: LCS 400-367615/5
Matrix: Water
Analysis Batch: 367615

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: 400-142503-20 MS
Matrix: Water
Analysis Batch: 367615

Client Sample ID: AX20035 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.34		1.00	1.55		mg/L		121	75 - 125

TestAmerica Pensacola

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

Lab Sample ID: 400-142503-20 MSD
Matrix: Water
Analysis Batch: 367615

Client Sample ID: AX20035 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.34		1.00	1.58		mg/L		124	75 - 125	2	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-366969/6
Matrix: Water
Analysis Batch: 366969

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			09/06/17 11:10	1

Lab Sample ID: LCS 400-366969/7
Matrix: Water
Analysis Batch: 366969

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	13.7		mg/L		91	90 - 110

Lab Sample ID: MRL 400-366969/3
Matrix: Water
Analysis Batch: 366969

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	4.89	J	mg/L		98	50 - 150

Lab Sample ID: 400-142503-10 MS
Matrix: Water
Analysis Batch: 366969

Client Sample ID: AX19850 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	4.2	J	10.0	13.3		mg/L		91	77 - 128

Lab Sample ID: 400-142503-10 MSD
Matrix: Water
Analysis Batch: 366969

Client Sample ID: AX19850 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	4.2	J	10.0	13.6		mg/L		94	77 - 128	2	5

Lab Sample ID: 400-142503-14 MS
Matrix: Water
Analysis Batch: 366969

Client Sample ID: AX19854 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12		10.0	22.5		mg/L		103	77 - 128

QC Sample Results

Client: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

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

Lab Sample ID: 400-142503-14 MSD
Matrix: Water
Analysis Batch: 366969

Client Sample ID: AX19854 MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	12		10.0	22.4		mg/L		102	77 - 128	1	5

Lab Sample ID: MB 400-367158/6
Matrix: Water
Analysis Batch: 367158

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			09/07/17 13:21	1

Lab Sample ID: LCS 400-367158/7
Matrix: Water
Analysis Batch: 367158

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	13.7		mg/L		91	90 - 110

Lab Sample ID: MRL 400-367158/3
Matrix: Water
Analysis Batch: 367158

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	4.74	J	mg/L		95	50 - 150

Lab Sample ID: 400-142503-20 MS
Matrix: Water
Analysis Batch: 367158

Client Sample ID: AX20035 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	560	F1	200	533	F1	mg/L		-12	77 - 128

Lab Sample ID: 400-142503-20 MSD
Matrix: Water
Analysis Batch: 367158

Client Sample ID: AX20035 MW-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	560	F1	200	535	F1	mg/L		-11	77 - 128	0	5

Chain of Custody Record

Client Information Company: Keith Komegay Address: Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 City: Calera State Zip: AL, 35040 Phone: 205-684-8004 Email: kkk@crmc@southalco.com Project Name: Gorgas Ash Pond SSO#W		Client Contact Name: Anthony Goggins Phone: (circled) Email: Whitmore.Chayenne.R@epa.gov URL: cheyenne.whitmore@testamericainc.com		LAB No 100-56525-24537 1 Page Page 1 of 1 Date 1/28/17	
Analysis Requested Due Date Requested: TAT Requested (days): Routinely PO # WO # Project # SSO#W		Container Tracking Info Lab PM: Whitmore, Chayenne R Email: cheyenne.whitmore@testamericainc.com		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - H2SO4 F - MeOH G - Acetone H - Acetic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Sample ID: AX19841 AX19842 AX19843 AX19844 AX19845 AX19848 AX19847 AX19848 AX19849 AX19850		Sample Date 8/21/17 8/21/17 8/21/17 8/21/17 8/21/17 8/21/17 8/22/17 8/22/17 8/22/17		Sample Time 1058 1238 1324 1450 1615 1615 1545 0900 1015 1232	
Sample Type (C=Core, G=Grab) G G G G G G G G G		Matrix (For Core, Grab, or Other) Water Water Water Water Water Water Water Water Water		Preservation Code: G G G G G G G G G	
Field Preserved Sample (Yes or No) No No No No No No No No No		Field Preserved Sample (Yes or No) No No No No No No No No No		Total Number of Containers 1 1 1 1 1 1 1 1 1	
Special Instructions/Notes: MW-2 Sample ID MW-8D MW-8S 10/10/17 MW-7 MW-8 MW-8DUP (Sample Duplicate) FB-1 (Field Blank) MW-9 MW-11 MW-12		Special Instructions/Notes: MW-2 Sample ID MW-8D MW-8S 10/10/17 MW-7 MW-8 MW-8DUP (Sample Duplicate) FB-1 (Field Blank) MW-9 MW-11 MW-12		Special Instructions/Notes: MW-2 Sample ID MW-8D MW-8S 10/10/17 MW-7 MW-8 MW-8DUP (Sample Duplicate) FB-1 (Field Blank) MW-9 MW-11 MW-12	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal: (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Dispose By Lab <input type="checkbox"/> Archive For Months	
Empty Kit Requisitioned by: Keith Komegay Requisitioned by: Requisitioned by:		Date: 8-28-17 1200 Date/Time: Date/Time: Date/Time:		Method of Shipment: Date/Time: 8-29-2017 09:40 Date/Time: Date/Time:	
Custody/Seals Intact <input type="checkbox"/> Custody Seal No		Cooler Temperature(s) To and From Receipts: 4.8°C IR2		Company: APC Company: Company:	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-142503-1
SDG Number: Plant Gorgas Ash Pond

Login Number: 142503
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	4.8°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.	False	AX19841 MW-20 changed to MW-2.
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: Alabama Power General Test Laboratory
 Project/Site: CCR Plant Gorgas

TestAmerica Job ID: 400-142503-1
 SDG: Plant Gorgas Ash Pond

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	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
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



Plant Gorgas Ash Pond
Field pH Data

Well	Date	Obs	Units
GS-AP-MW-11	8/2/2016	7.14	SU
GS-AP-MW-11	9/21/2016	7.05	SU
GS-AP-MW-11	10/25/2016	6.97	SU
GS-AP-MW-11	12/13/2016	7.01	SU
GS-AP-MW-11	2/8/2017	6.93	SU
GS-AP-MW-11	3/28/2017	6.92	SU
GS-AP-MW-11	4/26/2017	6.91	SU
GS-AP-MW-11	6/7/2017	6.92	SU
GS-AP-MW-11	8/22/2017	7.01	SU
GS-AP-MW-12	8/3/2016	7.36	SU
GS-AP-MW-12	9/20/2016	7.28	SU
GS-AP-MW-12	10/25/2016	7.23	SU
GS-AP-MW-12	12/13/2016	7.27	SU
GS-AP-MW-12	2/8/2017	7.25	SU
GS-AP-MW-12	3/29/2017	7.34	SU
GS-AP-MW-12	4/26/2017	7.19	SU
GS-AP-MW-12	6/7/2017	7.24	SU
GS-AP-MW-12	8/22/2017	7.31	SU
GS-AP-MW-13	8/2/2016	6.8	SU
GS-AP-MW-13	9/20/2016	6.8	SU
GS-AP-MW-13	10/25/2016	6.85	SU
GS-AP-MW-13	12/13/2016	6.8	SU
GS-AP-MW-13	2/8/2017	6.76	SU
GS-AP-MW-13	3/29/2017	6.76	SU
GS-AP-MW-13	4/26/2017	6.71	SU
GS-AP-MW-13	6/7/2017	6.71	SU
GS-AP-MW-13	8/22/2017	6.84	SU
GS-AP-MW-14	8/2/2016	7.39	SU
GS-AP-MW-14	9/19/2016	7.2	SU
GS-AP-MW-14	10/25/2016	7.23	SU
GS-AP-MW-14	12/13/2016	7.19	SU
GS-AP-MW-14	2/8/2017	7.09	SU
GS-AP-MW-14	3/28/2017	7.35	SU
GS-AP-MW-14	4/26/2017	7.16	SU
GS-AP-MW-14	6/7/2017	7.13	SU
GS-AP-MW-14	8/22/2017	7.18	SU
GS-AP-MW-15	8/1/2016	11.74	SU
GS-AP-MW-15	9/20/2016	10.33	SU
GS-AP-MW-15	10/25/2016	10.24	SU
GS-AP-MW-15	12/14/2016	10.09	SU
GS-AP-MW-15	2/8/2017	9.75	SU
GS-AP-MW-15	3/28/2017	9.9	SU
GS-AP-MW-15	4/26/2017	10.08	SU
GS-AP-MW-15	6/6/2017	10.2	SU
GS-AP-MW-15	8/22/2017	10.57	SU
GS-AP-MW-16D	8/1/2016	7.53	SU

Plant Gorgas Ash Pond
Field pH Data

Well	Date	Obs	Units
GS-AP-MW-16D	9/19/2016	7.5	SU
GS-AP-MW-16D	10/25/2016	7.44	SU
GS-AP-MW-16D	12/13/2016	7.45	SU
GS-AP-MW-16D	2/8/2017	7.41	SU
GS-AP-MW-16D	3/29/2017	7.44	SU
GS-AP-MW-16D	4/26/2017	7.47	SU
GS-AP-MW-16D	6/6/2017	7.37	SU
GS-AP-MW-16D	8/22/2017	7.48	SU
GS-AP-MW-17	8/1/2016	8.39	SU
GS-AP-MW-17	9/19/2016	8.42	SU
GS-AP-MW-17	10/24/2016	8.42	SU
GS-AP-MW-17	12/13/2016	8.43	SU
GS-AP-MW-17	2/6/2017	8.38	SU
GS-AP-MW-17	3/27/2017	8.43	SU
GS-AP-MW-17	4/24/2017	8.39	SU
GS-AP-MW-17	6/5/2017	8.42	SU
GS-AP-MW-17	8/22/2017	8.4	SU
GS-AP-MW-18	8/2/2016	7.65	SU
GS-AP-MW-18	9/21/2016	7.47	SU
GS-AP-MW-18	10/24/2016	7.44	SU
GS-AP-MW-18	12/12/2016	7.39	SU
GS-AP-MW-18	2/8/2017	7.31	SU
GS-AP-MW-18	3/28/2017	7.6	SU
GS-AP-MW-18	4/26/2017	7.5	SU
GS-AP-MW-18	6/6/2017	7.34	SU
GS-AP-MW-18	8/23/2017	7.4	SU
GS-AP-MW-19	8/1/2016	8.05	SU
GS-AP-MW-19	9/21/2016	8.14	SU
GS-AP-MW-19	10/24/2016	8.55	SU
GS-AP-MW-19	12/13/2016	8.08	SU
GS-AP-MW-19	2/7/2017	8.61	SU
GS-AP-MW-19	3/28/2017	7.94	SU
GS-AP-MW-19	4/26/2017	8.26	SU
GS-AP-MW-19	6/6/2017	8.23	SU
GS-AP-MW-19	8/22/2017	8.1	SU
GS-AP-MW-2	8/2/2016	9.18	SU
GS-AP-MW-2	9/19/2016	9.18	SU
GS-AP-MW-2	10/24/2016	9.14	SU
GS-AP-MW-2	12/13/2016	9.2	SU
GS-AP-MW-2	2/8/2017	9.17	SU
GS-AP-MW-2	3/30/2017	9.08	SU
GS-AP-MW-2	4/26/2017	9.22	SU
GS-AP-MW-2	6/6/2017	9.22	SU
GS-AP-MW-2	8/21/2017	9.12	SU
GS-AP-MW-21	8/2/2016	10.26	SU
GS-AP-MW-21	9/21/2016	10.45	SU

Plant Gorgas Ash Pond
Field pH Data

Well	Date	Obs	Units
GS-AP-MW-21	10/25/2016	10.42	SU
GS-AP-MW-21	12/14/2016	10.12	SU
GS-AP-MW-21	2/8/2017	10.28	SU
GS-AP-MW-21	3/28/2017	10.67	SU
GS-AP-MW-21	4/26/2017	10.42	SU
GS-AP-MW-21	6/6/2017	10.51	SU
GS-AP-MW-21	8/23/2017	11.91	SU
GS-AP-MW-6D	8/3/2016	7.27	SU
GS-AP-MW-6D	9/20/2016	7.27	SU
GS-AP-MW-6D	10/24/2016	7.25	SU
GS-AP-MW-6D	12/12/2016	7.26	SU
GS-AP-MW-6D	2/6/2017	7.24	SU
GS-AP-MW-6D	3/27/2017	7.29	SU
GS-AP-MW-6D	4/24/2017	7.46	SU
GS-AP-MW-6D	6/6/2017	7.29	SU
GS-AP-MW-6D	8/21/2017	7.21	SU
GS-AP-MW-6S	8/3/2016	6.81	SU
GS-AP-MW-6S	9/20/2016	6.72	SU
GS-AP-MW-6S	10/26/2016	6.68	SU
GS-AP-MW-6S	12/12/2016	6.76	SU
GS-AP-MW-6S	2/6/2017	6.75	SU
GS-AP-MW-6S	3/27/2017	6.67	SU
GS-AP-MW-6S	4/24/2017	6.81	SU
GS-AP-MW-6S	6/6/2017	6.8	SU
GS-AP-MW-6S	8/21/2017	6.78	SU
GS-AP-MW-7	8/2/2016	7.72	SU
GS-AP-MW-7	9/21/2016	7.6	SU
GS-AP-MW-7	10/24/2016	7.68	SU
GS-AP-MW-7	12/12/2016	7.72	SU
GS-AP-MW-7	2/6/2017	7.64	SU
GS-AP-MW-7	3/28/2017	7.58	SU
GS-AP-MW-7	4/24/2017	7.68	SU
GS-AP-MW-7	6/7/2017	7.56	SU
GS-AP-MW-7	8/21/2017	7.61	SU
GS-AP-MW-8	8/3/2016	5.84	SU
GS-AP-MW-8	9/21/2016	5.99	SU
GS-AP-MW-8	10/25/2016	5.94	SU
GS-AP-MW-8	12/13/2016	5.84	SU
GS-AP-MW-8	2/6/2017	5.9	SU
GS-AP-MW-8	3/28/2017	5.67	SU
GS-AP-MW-8	4/24/2017	5.79	SU
GS-AP-MW-8	6/7/2017	5.71	SU
GS-AP-MW-8	8/21/2017	5.7	SU
GS-AP-MW-9	8/3/2016	6.51	SU
GS-AP-MW-9	9/21/2016	6.57	SU
GS-AP-MW-9	10/25/2016	6.58	SU

Plant Gorgas Ash Pond
Field pH Data

Well	Date	Obs	Units
GS-AP-MW-9	12/13/2016	6.71	SU
GS-AP-MW-9	2/8/2017	6.66	SU
GS-AP-MW-9	3/28/2017	6.65	SU
GS-AP-MW-9	4/26/2017	6.63	SU
GS-AP-MW-9	6/7/2017	6.61	SU
GS-AP-MW-9	8/22/2017	6.7	SU

Appendix B

Statistical Data Evaluation

Interwell Prediction Limits - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/24/2018, 2:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-2	0.1	n/a	8/21/2017	0.102	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1	n/a	8/21/2017	0.906	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1	n/a	8/21/2017	1.39	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Boron (mg/L)	GS-AP-MW-9	0.1	n/a	8/22/2017	0.191	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Boron (mg/L)	GS-AP-MW-12	0.1	n/a	8/22/2017	0.156	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Boron (mg/L)	GS-AP-MW-18	0.1	n/a	8/23/2017	1.71	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1	n/a	8/21/2017	1.05	Yes	18	n/a	n/a	22.22	n/a	n/a	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-9	48.1	n/a	8/22/2017	77.6	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-18	48.1	n/a	8/23/2017	153	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	8/21/2017	63.5	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-2	3.938	n/a	8/21/2017	12	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	3.938	n/a	8/21/2017	6.1	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	3.938	n/a	8/21/2017	4.7	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-11	3.938	n/a	8/22/2017	6	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-12	3.938	n/a	8/22/2017	6.5	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-14	3.938	n/a	8/22/2017	5.9	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15	3.938	n/a	8/22/2017	5.3	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	3.938	n/a	8/22/2017	12	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-18	3.938	n/a	8/23/2017	31	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	3.938	n/a	8/22/2017	6.5	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	3.938	n/a	8/23/2017	29	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	3.938	n/a	8/21/2017	21	Yes	18	3.221	0.2969	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2154	n/a	8/21/2017	1.4	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-12	0.2154	n/a	8/22/2017	0.41	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2154	n/a	8/22/2017	0.9	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2154	n/a	8/22/2017	0.24	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-18	0.2154	n/a	8/23/2017	0.34	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2154	n/a	8/22/2017	0.35	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-21	0.2154	n/a	8/23/2017	0.3	Yes	18	0.107	0.04482	0	None	No	0.0005374 Param Inter 1 of 2
pH (SU)	GS-AP-MW-2	6.85	5.67	8/21/2017	9.12	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6D	6.85	5.67	8/21/2017	7.21	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	6.85	5.67	8/21/2017	7.61	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-11	6.85	5.67	8/22/2017	7.01	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-12	6.85	5.67	8/22/2017	7.31	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-14	6.85	5.67	8/22/2017	7.18	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	6.85	5.67	8/22/2017	10.57	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-16D	6.85	5.67	8/22/2017	7.48	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	6.85	5.67	8/22/2017	8.4	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-18	6.85	5.67	8/23/2017	7.4	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	6.85	5.67	8/22/2017	8.1	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	6.85	5.67	8/23/2017	11.91	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	12	n/a	8/21/2017	55	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	12	n/a	8/21/2017	35	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	12	n/a	8/21/2017	140	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9	12	n/a	8/22/2017	170	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-11	12	n/a	8/22/2017	21	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	12	n/a	8/22/2017	22	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	12	n/a	8/22/2017	42	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	12	n/a	8/23/2017	560	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	12	n/a	8/23/2017	43	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	12	n/a	8/21/2017	260	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	226	n/a	8/21/2017	416	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	226	n/a	8/21/2017	289	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	226	n/a	8/21/2017	362	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-9	226	n/a	8/22/2017	474	Yes	18	n/a	n/a	0	n/a	n/a	NP Inter (normality) 1 of 2

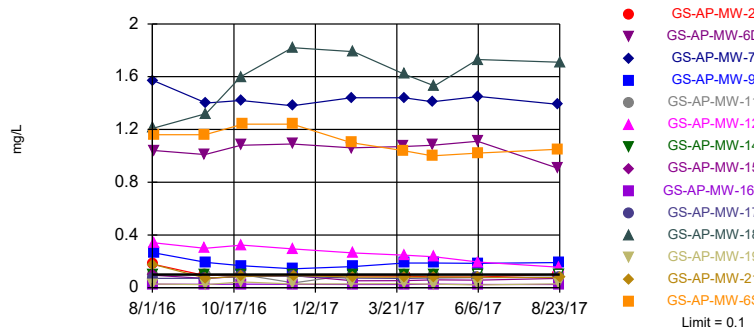
Interwell Prediction Limits - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/24/2018, 2:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDsND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	GS-AP-MW-11	226	n/a	8/22/2017	244	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12	226	n/a	8/22/2017	286	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-14	226	n/a	8/22/2017	243	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	226	n/a	8/22/2017	364	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-16D	226	n/a	8/22/2017	230	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	226	n/a	8/22/2017	500	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	226	n/a	8/23/2017	1020	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	226	n/a	8/22/2017	293	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	226	n/a	8/23/2017	508	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	226	n/a	8/21/2017	524	Yes	18	n/a	n/a	0	n/a	n/a	0.004299 NP Inter (normality) 1 of 2

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-M

Prediction Limit Interwell Non-parametric

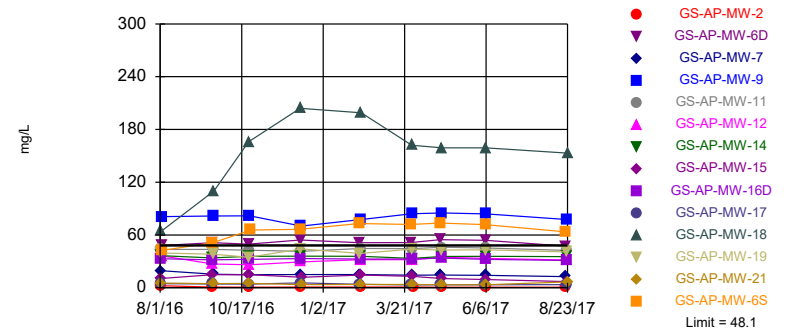


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 22.22% NDs. Annual per-constituent alpha = 0.1136. Individual comparison alpha = 0.004299 (1 of 2). Comparing 14 points to limit.

Constituent: Boron Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-9, GS-AP-MW-18, GS-AP-MW-6S

Prediction Limit Interwell Non-parametric

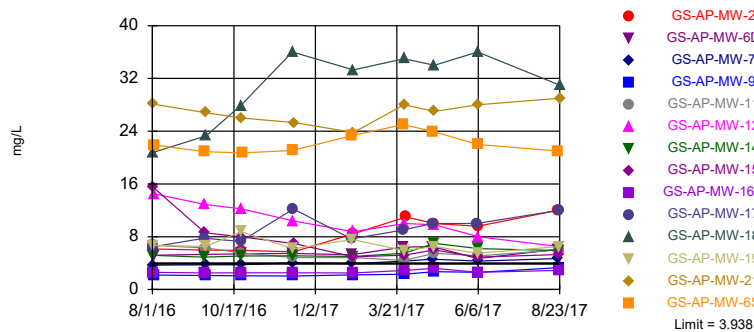


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. Annual per-constituent alpha = 0.1136. Individual comparison alpha = 0.004299 (1 of 2). Comparing 14 points to limit.

Constituent: Calcium Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-11, GS-AP-

Prediction Limit Interwell Parametric

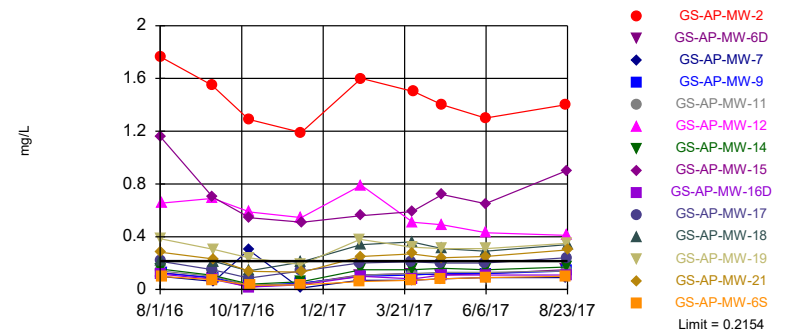


Background Data Summary: Mean=3.221, Std. Dev.=0.2969, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9151, critical = 0.858. Kappa = 2.418 (c=7, w=14, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005374. Comparing 14 points to limit.

Constituent: Chloride Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-17...

Prediction Limit Interwell Parametric

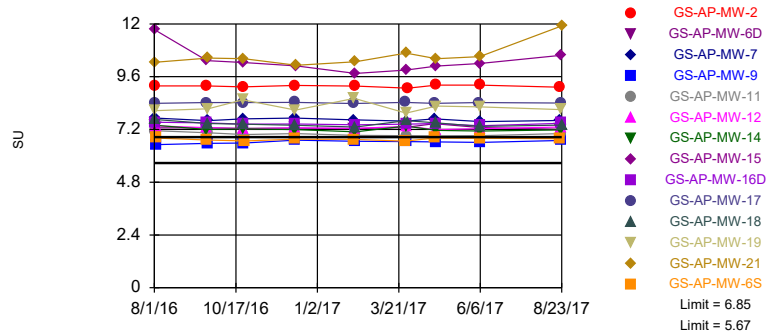


Background Data Summary: Mean=0.107, Std. Dev.=0.04482, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9596, critical = 0.858. Kappa = 2.418 (c=7, w=14, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005374. Comparing 14 points to limit.

Constituent: Fluoride Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-11...

Prediction Limit
Interwell Non-parametric

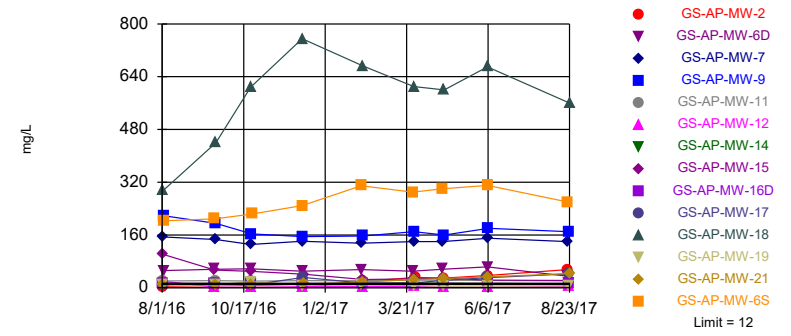


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 18 background values. Annual per-constituent alpha = 0.2273. Individual comparison alpha = 0.008599 (1 of 2). Comparing 14 points to limit.

Constituent: pH Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-M

Prediction Limit
Interwell Non-parametric

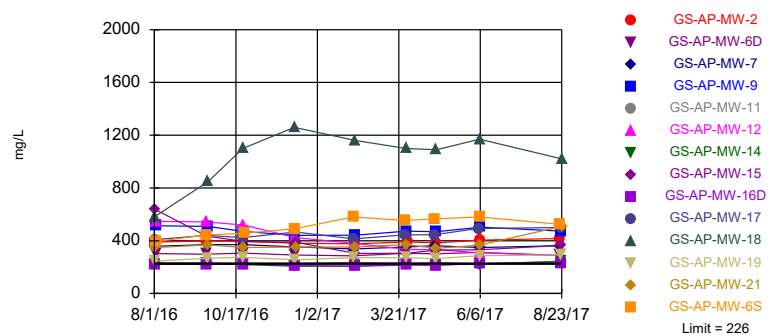


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. Annual per-constituent alpha = 0.1136. Individual comparison alpha = 0.004299 (1 of 2). Comparing 14 points to limit.

Constituent: Sulfate Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-M

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. Annual per-constituent alpha = 0.1136. Individual comparison alpha = 0.004299 (1 of 2). Comparing 14 points to limit.

Constituent: TDS Analysis Run 1/24/2018 2:13 PM View: PLs - Interwell
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Trend Test Summary Table - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 11/15/2017, 10:25 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	GS-AP-MW-12	-0.174	-34	-25	Yes	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.973	31	25	Yes	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-12	-6.932	-32	-25	Yes	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-15	-43.19	-30	-25	Yes	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	37.5	30	25	Yes	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-12	-281.7	-36	-25	Yes	9	0	n/a	n/a	0.01	NP

Trend Test Summary Table - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 11/15/2017, 10:25 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-8 (Bg)	0	-4	-25	No	9	22.22	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-13 (Bg)	0	-14	-25	No	9	22.22	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	-0.02876	-18	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6D	0.04753	7	25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	-0.01549	-3	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-9	-0.00475	-3	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-12	-0.174	-34	-25	Yes	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-18	0.4306	12	25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.1914	-18	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-8 (Bg)	-6.508	-22	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-13 (Bg)	-2.637	-6	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-9	3.621	7	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-18	-4.71	-1	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6S	18.99	16	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (Bg)	0.6865	21	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-13 (Bg)	0.5025	16	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	6.281	18	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6D	0.8533	12	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.973	31	25	Yes	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-11	-1.421	-11	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-12	-6.932	-32	-25	Yes	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-14	1.118	18	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-15	-5.661	-24	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	4.493	21	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-18	13.03	17	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-1.209	-15	-25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	1.846	7	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6S	1.215	8	25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (Bg)	-0.2728	-21	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-13 (Bg)	-0.09019	-13	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0	0	25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-6D	0	0	25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-7	-0.1037	-14	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-11	-0.1318	-20	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	-0.05184	-8	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-14	-0.1112	-16	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	-0.3689	-8	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-16D	-0.09251	-11	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	0	1	25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-18	-0.1945	-12	-25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-19	0.03812	2	25	No	9	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-21	0.6462	17	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-8 (Bg)	-0.9467	-11	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-13 (Bg)	-0.249	-8	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	54.99	23	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6D	-1.444	-2	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-7	-2.096	-5	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-9	-20.9	-5	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-11	1.456	11	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-15	-43.19	-30	-25	Yes	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17	24.3	22	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-18	174.3	6	25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	37.5	30	25	Yes	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-6S	129.3	24	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (Bg)	-35.62	-24	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-13 (Bg)	-2.984	-3	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-2	15.6	8	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-6D	-1.876	-2	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-7	-9.451	-8	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-9	-10.04	-4	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-11	-1.869	-2	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-12	-281.7	-36	-25	Yes	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-14	6.446	11	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15	-152.2	-16	-25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-16D	6.212	6	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	66.71	24	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-18	195.8	7	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-19	28.38	18	25	No	9	0	n/a	n/a	0.01	NP

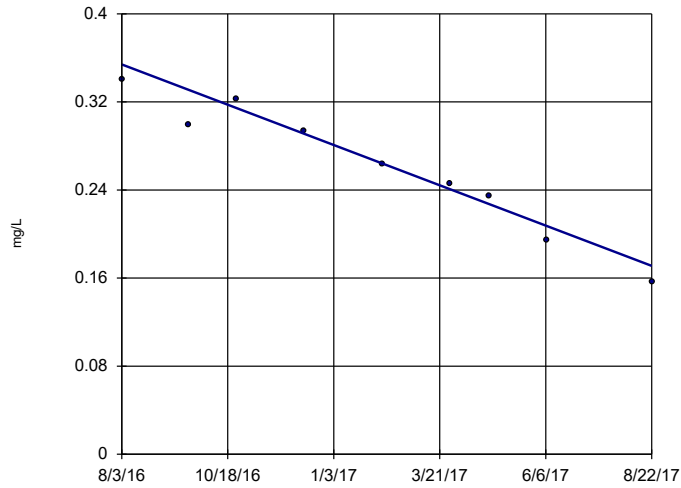
Trend Test Summary Table - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 11/15/2017, 10:25 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	GS-AP-MW-21	25.86	12	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-6S	204.4	23	25	No	9	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

GS-AP-MW-12

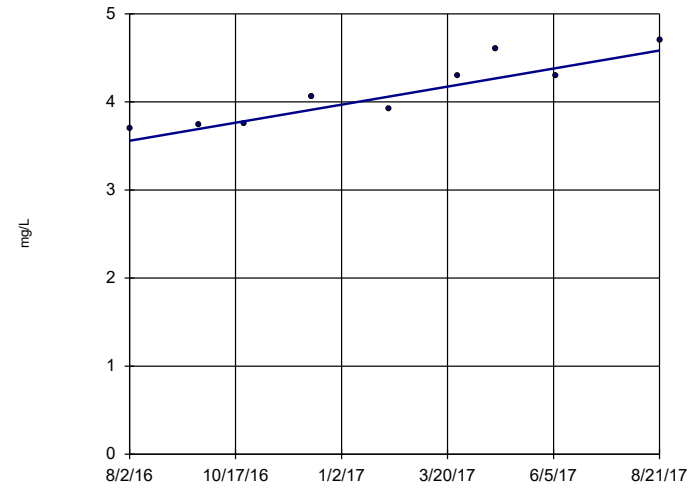


n = 9
 Slope = -0.174
 units per year.
 Mann-Kendall
 statistic = -34
 critical = -25
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 11/15/2017 10:23 AM View: Trend Tests
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-7

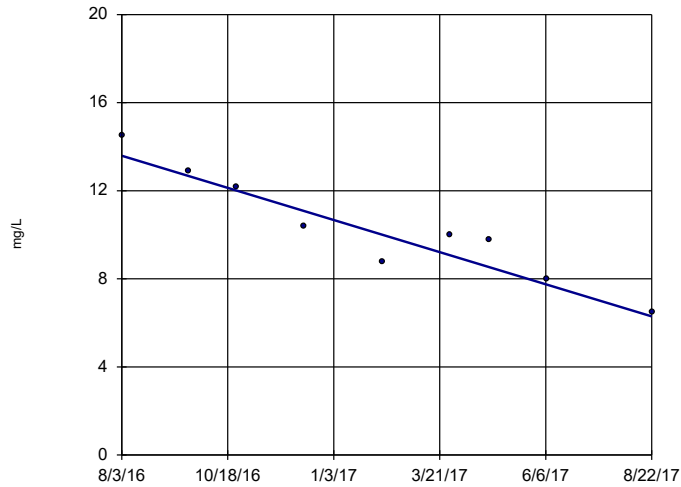


n = 9
 Slope = 0.973
 units per year.
 Mann-Kendall
 statistic = 31
 critical = 25
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 11/15/2017 10:23 AM View: Trend Tests
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-12

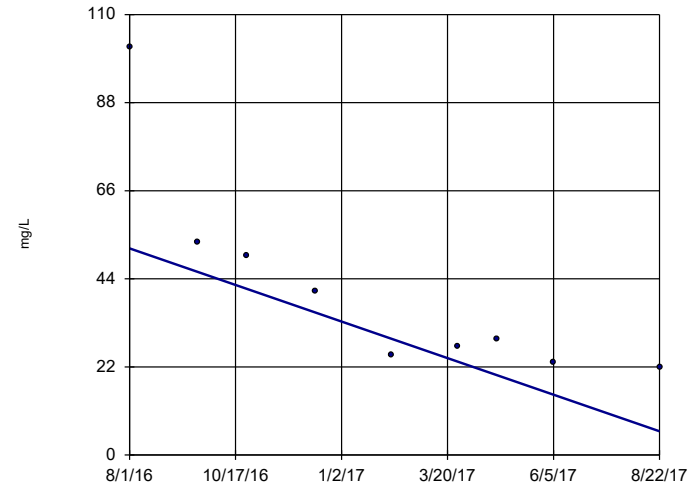


n = 9
 Slope = -6.932
 units per year.
 Mann-Kendall
 statistic = -32
 critical = -25
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Chloride Analysis Run 11/15/2017 10:23 AM View: Trend Tests
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

GS-AP-MW-15

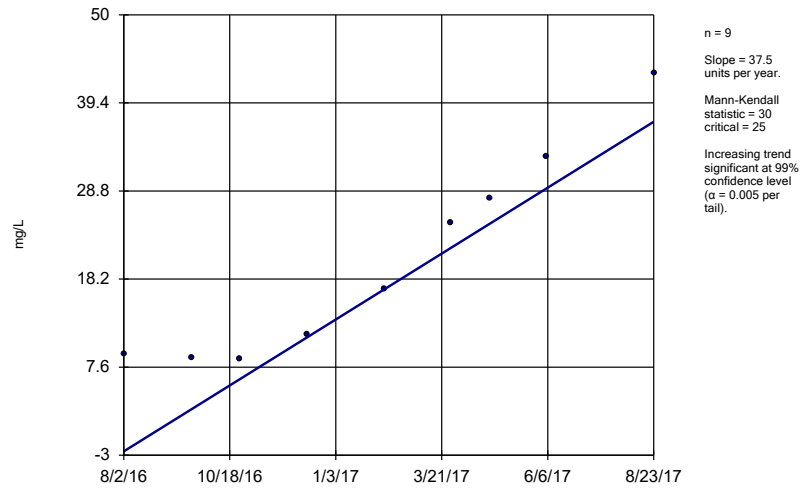


n = 9
 Slope = -43.19
 units per year.
 Mann-Kendall
 statistic = -30
 critical = -25
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 11/15/2017 10:24 AM View: Trend Tests
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator

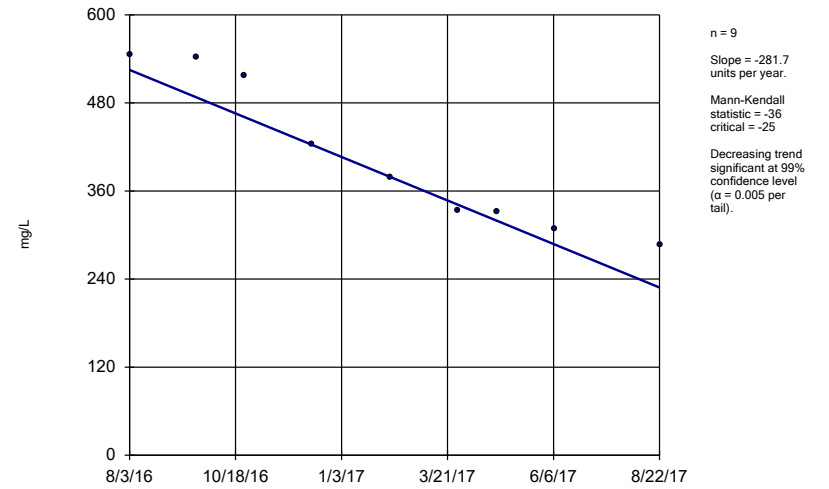
GS-AP-MW-21



Constituent: Sulfate Analysis Run 11/15/2017 10:24 AM View: Trend Tests
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

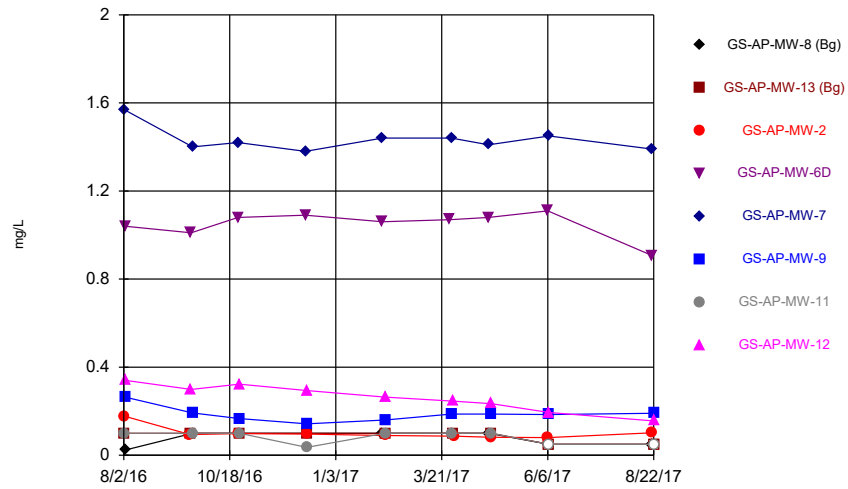
Sen's Slope Estimator

GS-AP-MW-12

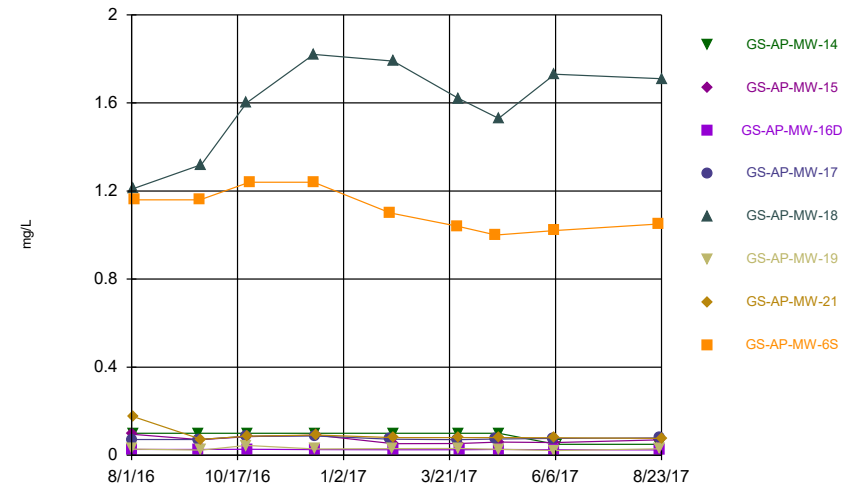


Constituent: TDS Analysis Run 11/15/2017 10:24 AM View: Trend Tests
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

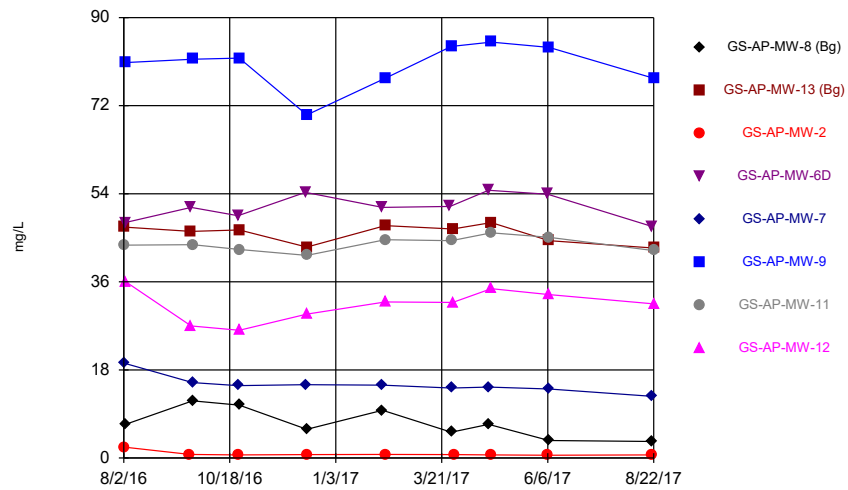
Time Series



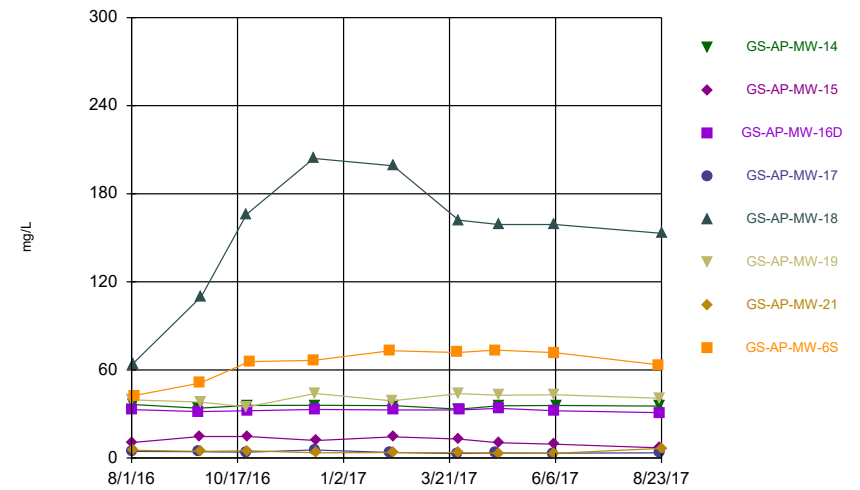
Time Series



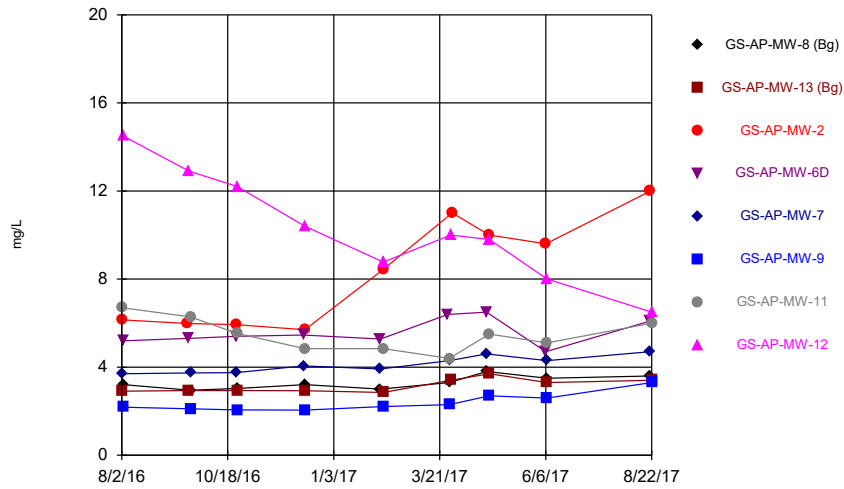
Time Series



Time Series

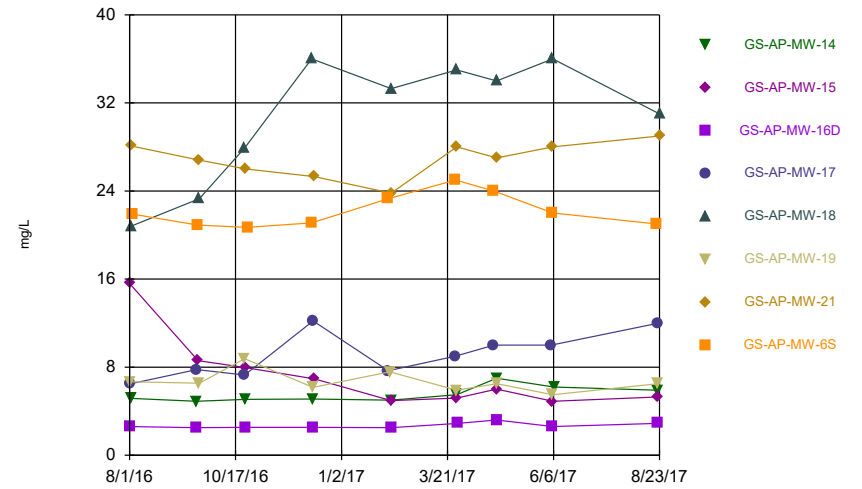


Time Series



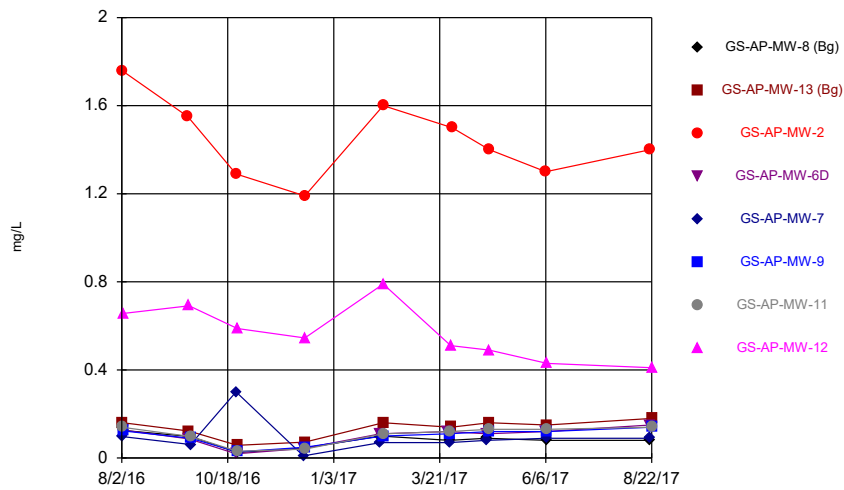
Constituent: Chloride Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



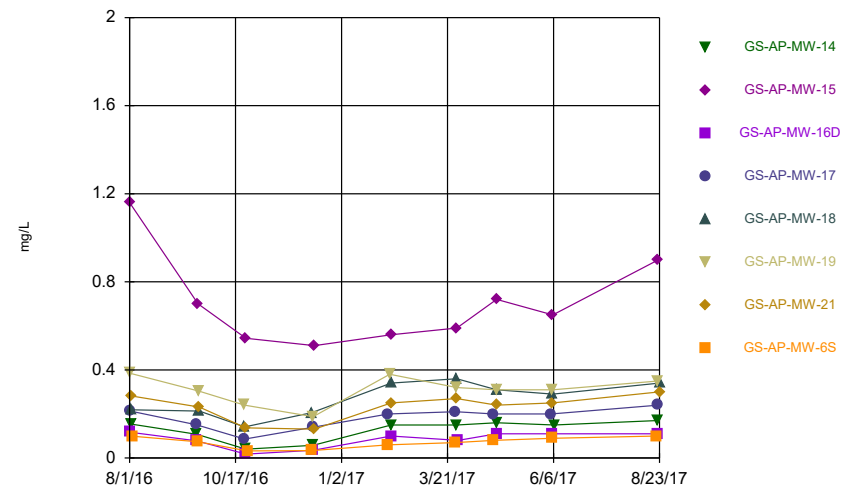
Constituent: Chloride Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



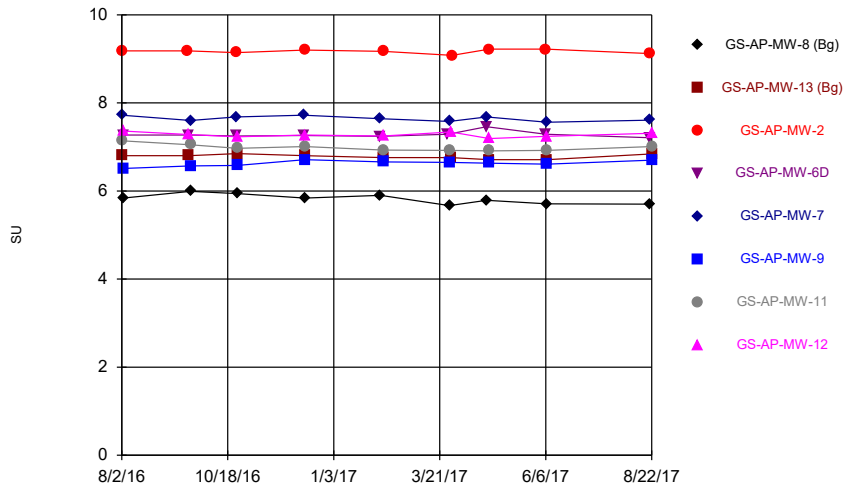
Constituent: Fluoride Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



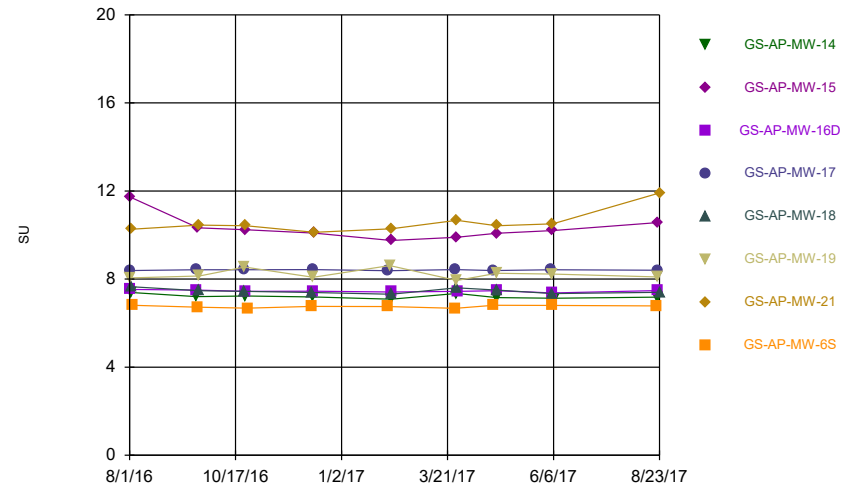
Constituent: Fluoride Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



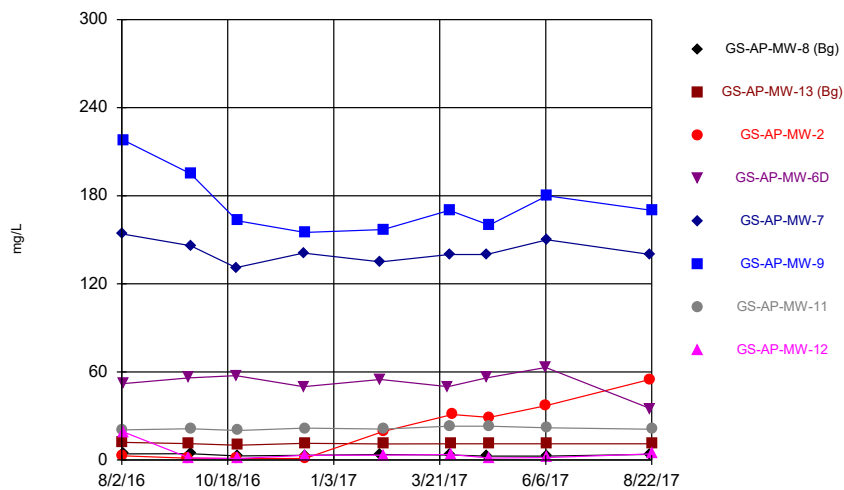
Constituent: pH Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



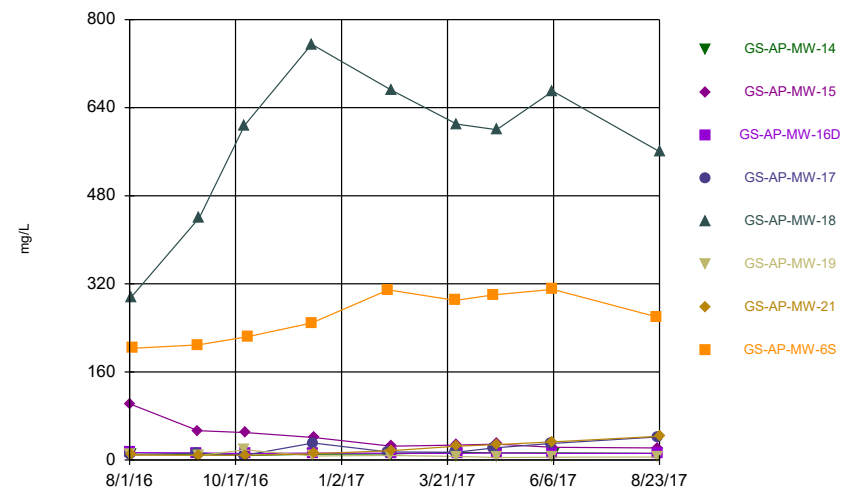
Constituent: pH Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



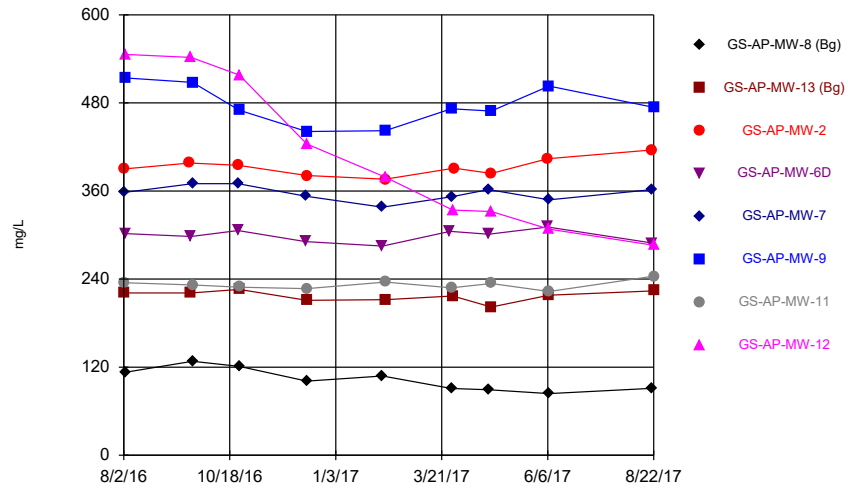
Constituent: Sulfate Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



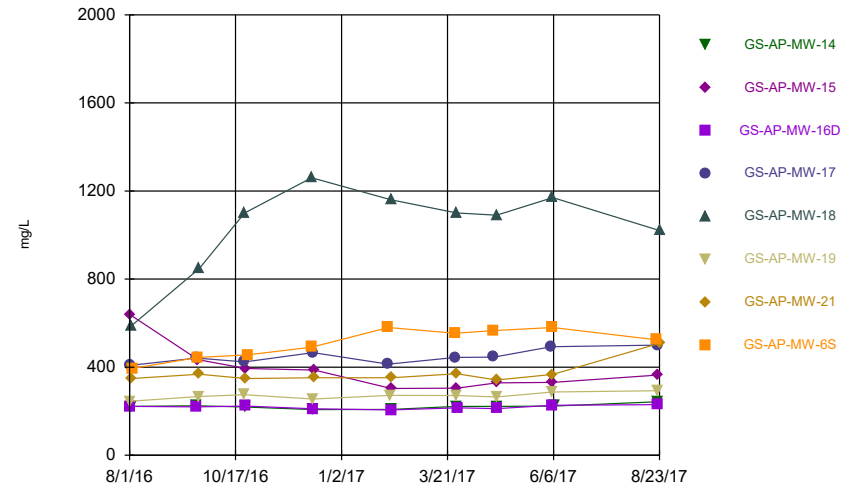
Constituent: Sulfate Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: TDS Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: TDS Analysis Run 11/15/2017 10:15 AM View: Time Series - All Wells
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond