
**2018 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE
ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT BARRY GYPSUM POND**



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ABBREVIATIONS

AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASTM	Alabama Power Company 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
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
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
SSL	statistically significant level
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) and the State of Alabama's ADEM Admin. Code Chapter 335-13-15, this 2018 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the 2018 initial and semi-annual assessment groundwater monitoring activities at the Plant Barry Gypsum Pond and to satisfy the requirements of §257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Initial assessment monitoring, semi-annual monitoring, and associated reporting for Plant Barry Gypsum Pond is performed in accordance with the monitoring requirements §257.90 through §257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 SITE LOCATION AND DESCRIPTION

Alabama Power Company's Plant James M. Barry Electric Generating Plant (Plant Barry) is in northeastern Mobile County, Alabama, approximately 23 miles north of Mobile, AL and 1 mile east of the city of Bucks, AL. The physical address is 153000 U.S. Highway 43 North, Bucks, Alabama 36512. Plant Barry lies in Section 36 of Township 1 North, Range 1 West, Sections 31 and 32 of Township 1 North, Range 1 East, Section 1 of Township 1 South, Range 1 West, and Sections 5 and 6 of Township 1 South, Range 1 East. Section/Township/Range data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1980, 1982a, 1982b, 1983).

The Gypsum Pond is located south-southwest of the main plant and in between Sister's Creek to the north, Cold Creek to the south, and the plant's discharge canal to the east. **Figure 1, Site Location Map**, depicts the location of the Plant and Gypsum Pond with respect to the surrounding area.

3.0 SITE GEOLOGY AND HYDROGEOLOGY

3.1 Physical Setting

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is comprised of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Elevations near the Gypsum Pond slope from west to east and range from approximately 30 feet to 10 feet above mean sea level (MSL), respectively.

3.2 Geology and Hydrogeology

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. The Pliocene age Citronelle formation, while present regionally, was not encountered at the site. Sedimentary alluvial and terrace deposits of the Quaternary Period overlie largely unconsolidated Tertiary deposits in and adjacent to the flood plains of the Mobile River. At the site, Holocene age alluvial and low terrace deposits overlie undifferentiated Miocene Series sediments. Miocene Series sediments were primarily deposited in a regressive marine depositional environment. The Miocene Series is comprised of fine to very coarse-grained sand with interbedded sandy clays, silts, and shell fragments (Walter and Kidd, 1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic, and contain wood

fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 2, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

Generalized near-surface stratigraphy of the site, in descending order, consists of (1) lean to flat clay down to an elevation of 10 feet MSL, (2) a poorly to well sorted sand with lenses of clay down to elevations between -45 and -50 feet MSL, and (3) a basal clay layer (Unit 3). These units are considered part of the Pleistocene to Holocene age alluvial, low terrace, and coastal deposits described above.

The uppermost clay interval is described as a gray to brown to reddish-yellow, sandy lean clay that occasionally grades into an organic rich fat clay near the base of the unit. Some spatial heterogeneity is observed, as the clay is not present at boring location MW-1 and found to be much thicker at boring location MW-10. Portions of this clay rich interval are likely inclusive of fill materials placed during construction of the Gypsum Pond.

Underlying the clay, an interval consisting largely of coarse sediments and includes zones of clayey sand, well-sorted sand, poorly-sorted sand, and gravelly, sand to gravel. The vertical and horizontal heterogeneity of these sands are not uncommon as sand beds deposited in stream or creek valleys are very lenticular and generally, can be traced over only short distances (Davis, 1987). Clay stringers or clay rich intervals are also encountered but are not prevalent. These clays represent low energy deposition, whereas sands and gravels represent higher energy environments. Gravel or sandy gravel intervals might be representative of buried creek beds.

Beneath the sandy layer, a mottled gray to brown fat clay with trace wood fragments and sand to medium to high plasticity organic clay is encountered. At some locations (MW-6 and MW-7), the upper surface of this unit has also been described as a clayey sand or clayey gravel. Borings conducted at the site, largely, did not penetrate the vertical extent of this clay unit; however, limited data suggests this unit to be 10 feet in thickness or greater beneath the site.

3.3 Uppermost Aquifer

The uppermost aquifer beneath the site corresponds to alluvial, low terrace, and coastal deposit sands, which are part of the Watercourse Aquifer system. At the site, the Watercourse Aquifer consists of medium to coarse sands with discrete gravelly, sand and gravel. Clay nodules, lenses, and stringers are present, but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 15 and 25 feet below ground surface (BGS) and appears to extend down to approximately 65 to 70 feet BGS, where clays are encountered. Groundwater recharge to the Watercourse Aquifer is largely accomplished via infiltration of precipitation and subsequent percolation down to the water table. Temporary recharge to the aquifer might occur during high stage or flood events of the Mobile River where surface water could infiltrate via hydraulically connected sand beds or infiltration of flooded water. The latter would occur in areas where land has been inundated by flood waters. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. However, locally semi-confined to confined conditions might be present when a sufficient aquitard separates the aquifers or sand units.

4.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY

Pursuant to §257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Gypsum Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. As required by §257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding year.

4.1 Groundwater Monitoring System

The groundwater monitoring network is comprised of 10 monitoring wells and 2 piezometers. Monitoring well locations are presented on **Figure 3, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Gypsum Pond.

Monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 serve as upgradient locations for the Gypsum Pond. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site. Monitoring well locations BY-GSA-MW-5 through BY-GSA-MW-10 are utilized as downgradient locations for the Gypsum Pond. Downgradient locations are located lateral and north of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site.

Table 1. Groundwater Monitoring Well Network Details

Well Name	Purpose	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation
BY-GSA-MW-1	Upgradient	10/7/2015	362040.419	1808280.793	17.49	20.66	-16.74	-26.74
BY-GSA-MW-2	Upgradient	10/7/2015	361970.572	1807662.482	17.00	19.95	-20.58	-30.58
BY-GSA-MW-3	Upgradient	10/7/2015	361628.894	1807368.366	20.15	23.24	-18.38	-28.38
BY-GSA-MW-4	Upgradient	10/13/2015	361930.406	1806925.713	26.16	29.12	-27.90	-37.90
BY-GSA-MW-5	Downgradient	10/8/2015	362556.147	1807430.006	31.21	34.31	-27.91	-37.91
BY-GSA-MW-6	Downgradient	10/8/2015	363069.127	1807359.035	18.60	21.68	-9.28	-19.28
BY-GSA-MW-7	Downgradient	10/8/2015	363103.505	1807778.082	17.46	20.59	-18.07	-28.07
BY-GSA-MW-8	Downgradient	10/8/2015	362919.54	1808314.524	31.51	34.36	-27.33	-37.33
BY-GSA-MW-9	Downgradient	10/8/2015	362798.723	1808598.555	10.44	13.32	-25.70	-35.70
BY-GSA-MW-10	Downgradient	10/8/2015	362443.556	1808600.09	14.65	17.61	-20.04	-30.04
BY-GSA-PZ-11	Piezometer	10/8/2015	363464.097	1807619.818	23.56	25.92	-24.36	-34.36
BY-GSA-PZ-12	Piezometer	10/8/2015	363285.151	1808280.669	14.14	17.43	-19.34	-29.34

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 (ft MSL).

4.2 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2018; the network remained the same as in the 2017 reporting year. Monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.

4.3 Assessment Monitoring

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, Alabama Power initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR §257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in January, within 90 days of initiating the assessment monitoring program. Pursuant to 40 CFR §257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d) monitoring wells were subsequently sampled for Appendix III and Appendix IV parameters in May and November. The May 2018 event was conducted within 90 days of obtaining the results from the January 2018 sampling event. Samples were collected from wells in the Professional Engineer (PE)-certified monitoring systems shown on **Figure 3**. A summary of groundwater sampling events completed in 2018 is provided in **Table 2, Compliance Sampling Events Summary**.

Analytical data from the initial assessment and semi-annual monitoring events are included as **Appendix A, Groundwater Analytical Data**, in accordance with the requirements of §257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

Table 2. Compliance Sampling Events Summary			
	Sampling Purpose	Constituents Sampled	Laboratory Receipt Date
Compliance Event 1	Initial Assessment	Appendix IV	4/13/2018
Compliance Event 2	Assessment Monitoring	Appendices III and IV	7/16/2018
Compliance Event 3	Assessment Monitoring	Appendices III and IV	12/20/2018

4.4 Additional Groundwater Sampling

Additional groundwater sampling was performed in August and November to further characterize groundwater quality at the site. Groundwater samples were collected following the procedures described in Section 5.0. Analytical results are included in **Appendix A**. Additional sampling was completed for the following analytes:

- Alkalinity, Total
- Bicarbonate Alkalinity
- Calcium, Total
- Carbonate Alkalinity
- Chloride
- Conductivity
- Dissolved Oxygen
- Dissolved Solids
- Iron, Dissolved
- Iron, Total
- Magnesium, Total
- Manganese, Dissolved
- Manganese, Total
- ORP
- pH
- pH for Alkalinity
- Potassium, Total
- Sodium, Total
- Sulfate
- Temperature
- Turbidity

5.0 SAMPLING METHODOLOGY AND ANALYSIS

The following describes the methods used to conduct assessment monitoring at the Plant Barry Gypsum Pond.

5.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater levels were measured and recorded to the nearest 0.01 foot within a 24-hour period from the certified well network and piezometers. Groundwater levels recorded during the monitoring events are summarized in **Table 3, Groundwater Elevations Summary 2018**. Groundwater levels and top of casing elevations were used to calculate groundwater elevation and develop the potentiometric surface elevation contour map provided as **Figures 4 through 6, Potentiometric Surface Contour Map(s)**. The general direction of groundwater flow is to the north. The groundwater flow pattern observed during the 2018 monitoring events is consistent with historic observations.

Table 3				
Groundwater Elevations Summary 2018				
Well ID	Top of Casing Elevation	Groundwater Elevations		
		(feet MSL)		
	(feet MSL)	Jan-18	May-18	Nov-18
BY-GSA-MW-1	20.66	4.75	6.83	5.84
BY-GSA-MW-2	19.95	4.68	6.66	5.73
BY-GSA-MW-3	23.24	5.46	7.19	6.40
BY-GSA-MW-4	29.12	5.18	6.99	6.13
BY-GSA-MW-5	34.31	4.18	6.42	5.30
BY-GSA-MW-6	21.68	3.56	6.02	4.72
BY-GSA-MW-7	20.60	3.48	6.01	4.78
BY-GSA-MW-8	34.36	3.82	6.28	5.15
BY-GSA-MW-9	13.32	3.72	6.10	5.07
BY-GSA-MW-10	17.61	4.15	6.41	5.41
BY-GSA-MW-11	25.92	3.15	5.96	4.46
BY-GSA-MW-12	17.44	3.53	6.19	4.98

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug and pump test results, and an estimated effective porosity of the screened horizon. Slug

testing provided horizontal hydraulic conductivities for the Watercourse Aquifer (Unit 3) between 2.1×10^{-2} cm/sec and 6.75×10^{-3} cm/sec with an average of 1.0×10^{-2} cm/sec at the gypsum pond. Piezometers screened near the Gypsum Pond provide an average hydraulic conductivity of 4.27×10^{-3} cm/sec which is in good agreement with long duration pump testing of the Watercourse Aquifer which revealed an average hydraulic conductivity of 3.3×10^{-3} cm/sec. The hydraulic gradient was calculated between well pairs shown on **Table 4, Groundwater Flow Velocity Calculation - 2018**. The hydraulic conductivity value used in the calculations is 4.27×10^{-3} cm/sec or 12.1 ft/day. An estimated effective porosity of 25% is used in the flow rate calculations.

Horizontal flow velocity was calculated using the commonly-used derivative of Darcy's Law:

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

Where:

- V = Groundwater flow velocity ($\frac{feet}{day}$)
- K = Average permeability of the aquifer ($\frac{feet}{day}$)
- i = Horizontal hydraulic gradient
- n_e = Effective porosity

Using this equation, groundwater flow velocity is calculated for various areas of the site and is tabulated on **Table 4**. **Table 4** presents the velocity calculated using groundwater elevation data from the sampling events in 2018.

Date	MW-4 (feet)	MW-6 (feet)	Δh (feet)	Hydraulic Gradient (I) (feet/feet)	Hydraulic Conductivity (K) (feet/day)	Effective Porosity (ne)	Flow Velocity (feet/day)	Flow Velocity (feet/year)
1/22/18	5.18	3.56	1.62	1.33×10^{-3}	12.1	0.25	2.28×10^{-5}	8.31×10^{-3}

As presented on **Table 4** groundwater flow velocity at the site averages to approximately 2.28×10^{-5} feet/day (or approximately 8.31×10^{-3} feet/year) across the site.

5.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with §257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Barry are equipped with a dedicated 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:

- 0.2 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.

5.3 Laboratory Analysis

Laboratory analyses was 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**.

5.4 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**.

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Groundwater quality data for the most recent sampling event was validated for the most recent sampling event 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, 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.

6.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR §257.93 and ADEM Admin. Code r. 335-13-15-.06(4) and following the appropriate PE-certified method. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC. (GSC), in accordance with 40 CFR §257.93(f) and ADEM Admin Code r. 335-13-15-.06(4)(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (USEPA, 2009).

6.1 Statistical Methods

The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations. Although Assessment Monitoring has been implemented, statistical evaluation of Appendix III constituents is performed to determine if constituents have returned to background conditions. Statistical analysis was performed using methods described in the PE-certified statistical analysis plan for the site.

6.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell and intrawell prediction limit methods, combined with resampling strategies for each method. Intrawell prediction limits, combined with a 1-of-2 verification resample plan, were used for chloride and sulfate to determine whether there had been an initial statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with a 1-of-2 verification resample plan, were used to evaluate boron, calcium, fluoride, pH, and TDS. Intrawell prediction limits use historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify SSIs over background. 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 identify SSIs.

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

6.1.2 Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the groundwater protection standard (GWPS).

As described in 40 CFR §257.95(h)(1)-(3) the GWPS is:

- (1) The maximum contaminant level established under §141.62 and 141.66 of this title (the “MCL”).
- (2) Where an MCL has not been established:
 - (i) Cobalt 6 micrograms per liter (ug/l);
 - (ii) Lead 15 ug/l;
 - (iii) Lithium 40 ug/l; and
 - (iv) Molybdenum 100 ug/l.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Existing ADEM Admin Code r. 335-13-15 includes boron as an Appendix IV assessment monitoring parameter; therefore, it is included in the statistical analysis for the site. As explained in the Preamble to the federal CCR rule, the GWPSs listed above for cobalt, lead, lithium, and molybdenum are USEPA-established “Regional Screening Levels” (RSLs) that are used where an MCL has not been established. Following the procedure used by USEPA for the federal CCR rule, the USEPA-established RSL for boron (4.0 mg/L) was used as a GWPS for statistical comparison of boron data. **Table 5, Summary of Background Levels and Groundwater Protection Standards**, summarizes the background limit established at each monitoring well and the GWPS.

Table 5. Summary of Background Levels and Groundwater Protection Standards			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.146, 0.167	2
Beryllium	mg/L	0.003	0.004
Boron	mg/L	0.1, 0.11	4
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.006
Fluoride	mg/L	0.1	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	0.002
Total Radium-226/228	pCi/L	3.688, 3.0	5

Notes:

1. Where 2 numbers are present, they denote the different background levels and background-derived GWPS for each of the 2 semi-annual monitoring events in the order that they were determined.

6.2 Statistical Analysis Results

Analytical data from the 2018 semi-annual monitoring events in May and November were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017). Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

Based on review of the Appendix III statistical analysis presented in **Appendix B**, Appendix III constituents have not returned to background levels.

6.2.1 First Semi-Annual Groundwater Monitoring Event

Review of the Sanitas results presented in **Appendix B** did not identify any SSLs during the first semi-annual detection monitoring event.

6.2.2 Second Semi-Annual Groundwater Monitoring Event

Review of the Sanitas results presented in **Appendix B** did not identify any SSLs during the second semi-annual detection monitoring event.

7.0 MONITORING PROGRAM STATUS

In accordance with §257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III were identified at the Plant Barry Gypsum Pond during sampling events conducted in 2018, but no SSLs of Appendix IV constituents were observed over the GWPS. Therefore, in accordance with §257.95(g)(3)(ii) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4(ii), APC will continue assessment monitoring and will not implement assessment of corrective measures under §257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

8.0 CONCLUSIONS AND FUTURE ACTIONS

Based on results reported in the *2017 Annual Groundwater and Corrective Action Monitoring Report*, APC initiated an assessment monitoring program on January 15, 2018. Groundwater samples were subsequently collected from the certified well network and analyzed for Appendix IV parameters.

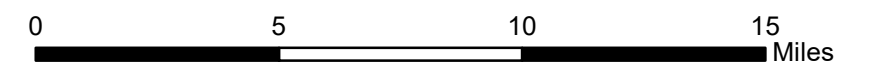
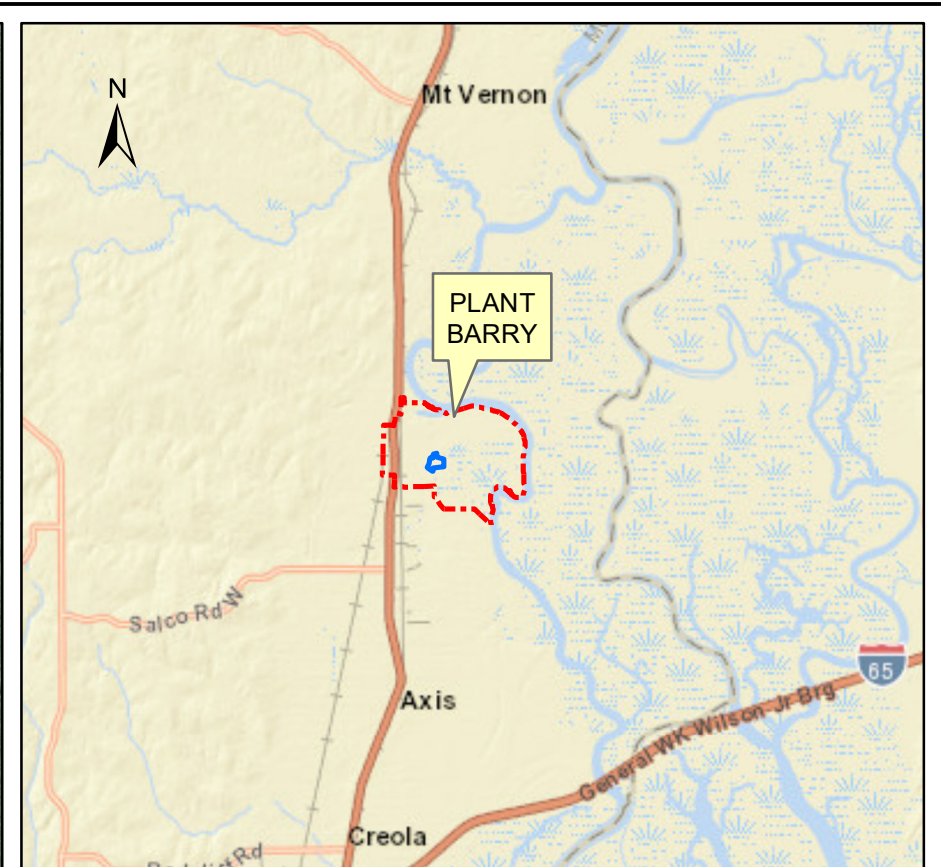
The certified compliance monitoring well network was resampled on a semi-annual basis, occurring in May and November 2018. The groundwater samples were analyzed for all Appendix III & IV parameters. The data from the semi-annual events were statistically evaluated relative to GWPS. Statistical evaluations of the May and November 2018 assessment monitoring data identified no SSLs of Appendix IV constituents above the GWPS. Therefore, in accordance with §257.95(g)(3) (ii) and Alabama Admin. Code r. 335-13-15-.06(6)(g)4(ii), APC will continue assessment monitoring.

The first semi-annual assessment monitoring event is planned for March or April 2019.

9.0 REFERENCES

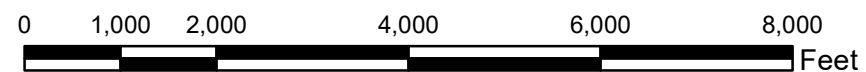
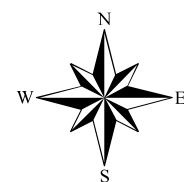
- ASTM Standard D5092, 2004(2010)e1, Standard Practice for Design and Installation of Groundwater Monitoring Wells, ASTM International, West Conshohocken, PA, DOI 10.1520/D5092-04R10E01, www.astm.org
- Chandler, R.V., Moore, J.D., and Gillet, B., 1985, Ground-water chemistry and salt-water encroachment, southern Baldwin County, Alabama: Alabama Geological Survey Bulletin 126, p. 166
- Davis, M.E., 1987, Stratigraphic and Hydrogeologic Framework of the Alabama Coastal Plain, U.S. Geological Survey, Water-Resources Investigations Report 87-4112.
- Gillet, B., Raymond, D.E., Moore, J.D., and Tew, B.H., 2000, Hydrogeology and Vulnerability to Contamination of Major Aquifers in Alabama: Area 13, Geological Survey of Alabama
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance
- 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
- United States Geological Survey (USGS), 1980 (Photorevised 1985), The Basin Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1982b, Mount Vernon Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1983, Stiggins Lake Alabama Quadrangle, 7.5 Minute Series Topographic Map
- Walter, G.R., and Kidd, R.E., 1979, Ground-water management techniques for the control of salt-water encroachment in Gulf Coast aquifer, a summary report: Geological Survey of Alabama open-file report, p. 84

Figures



Legend

- Property Boundary (Approximate)
- Gypsum Storage Area Boundary



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Southern Company Generation
Earth Science and Environmental Engineering

FOR

FIGURE 1
SITE LOCATION MAP
PLANT BARRY GYPSUM POND

Alabama Power Company

SCALE	PROJ. I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		FIGURE 1	1		

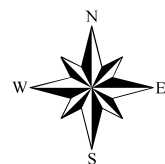


Legend

- Gypsum Pond
- Property Boundary (Approximate)

Geologic Units

- Alluvial, coastal, and low terrace deposits (Qalt)
- Miocene Series undifferentiated (Tm)



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

FOR

Alabama Power Company

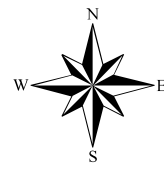
**FIGURE 2
SITE GEOLOGIC MAP
PLANT BARRY GYPSUM POND**

SCALE	PROJ. I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		FIGURE 2	1		



Legend

- Gypsum Pond
- + Monitoring Wells



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

FOR

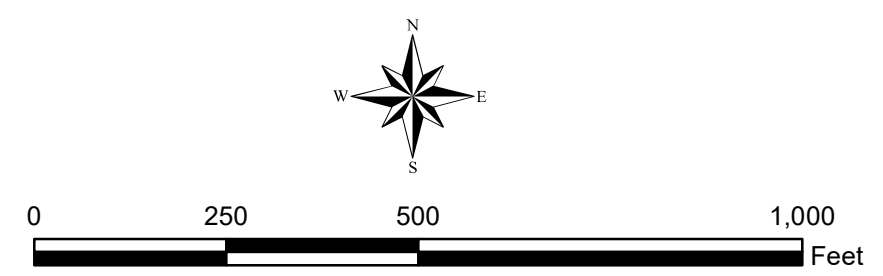
Alabama Power Company

FIGURE 3
MONITORING WELL LOCATION MAP
PLANT BARRY GYPSUM POND

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		FIGURE 3	1		



Legend	
	Monitoring Well
	Potentiometric Surface Contour (ft NAVD)
	Groundwater Flow Direction
	Property Boundary (Approximate)
	Gypsum Storage Area Boundary



NOTE: ft NAVD88 indicates feet above North American Datum of 1988.

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FIGURE 4
 POTENTIOMETRIC SURFACE MAP
 JANUARY 2018
 PLANT BARRY GYPSUM POND

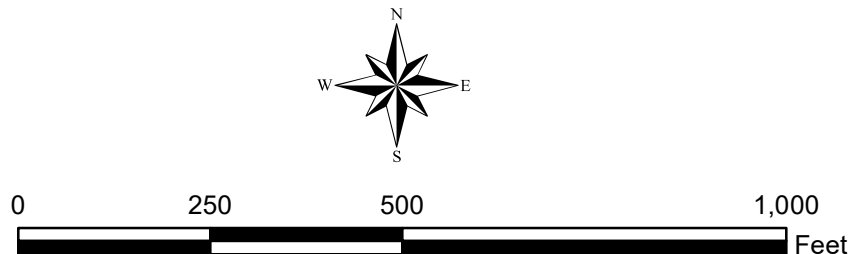
Southern Company Generation
 Earth Science and Environmental Engineering
 FOR

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		FIGURE 4	1		



Legend	
	Monitoring Well
	Potentiometric Surface Contour (ft NAVD)
	Groundwater Flow Direction
	Property Boundary (Approximate)
	Gypsum Storage Area Boundary

BY-GSA-MW-3	Well ID
7.19	Groundwater Elevation



NOTE: ft NAVD88 indicates feet above North American Datum of 1988.

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FIGURE 5
 POTENTIOMETRIC SURFACE MAP
 MAY 2018
 PLANT BARRY GYPSUM POND

Southern Company Generation
 Earth Science and Environmental Engineering

FOR

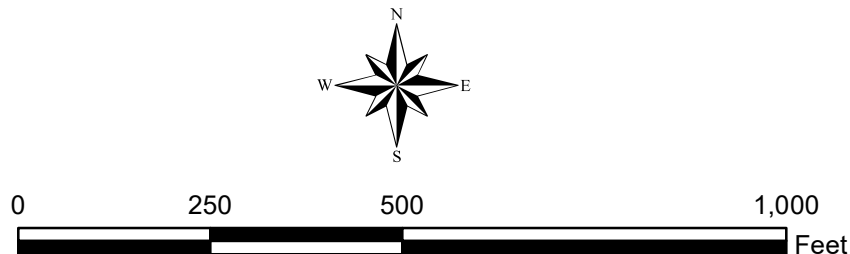
Alabama Power Company

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		FIGURE 5	1		



Legend

	Monitoring Well	BY-GSA-MW-3	Well ID
		5.84	Groundwater Elevation
	Potentiometric Surface Contour (ft NAVD)		
	Groundwater Flow Direction		
	Property Boundary (Approximate)		
	Gypsum Storage Area Boundary		



NOTE: ft NAVD88 indicates feet above North American Datum of 1988.

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FIGURE 6
POTENTIOMETRIC SURFACE MAP
NOVEMBER 2018
PLANT BARRY GYPSUM POND

Southern Company Generation
Earth Science and Environmental Engineering

FOR

Alabama Power Company

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		FIGURE 6	1		

Appendix A

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

Field Case Narrative



Plant Barry Gypsum Pond

Assessment Event 1

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

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



Sample Group : WMWBARG_1131

Project/Site : Barry Gypsum
Bucks, AL 36512


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: Sarah
Copeland

 Digitally signed by Sarah Copeland
DN: cn=Sarah Copeland, o, ou,
email=sgcopela@southernco.com,
c=US
Date: 2018.03.08 11:28:04 -06'00'

Supervision: T. Durant
Maske

 Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2018.03.09 09:30:07 -06'00'

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



Fluoride

Barry Gypsum

WMWBARG_1131

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 samples were outsourced to Test America, Pensacola for analysis. There was no job narrative provided, as there were no issues to report.



Metals ICP

Barry Gypsum

WMWBARG_1131

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>
AY01922	20180201CK	WMWBARG_1131
AY01923	20180201CK	WMWBARG_1131
AY01924	20180201CK	WMWBARG_1131
AY01925	20180201CK	WMWBARG_1131
AY01926	20180201CK	WMWBARG_1131
AY01927	20180201CK	WMWBARG_1131
AY01928	20180201CK	WMWBARG_1131
AY01929	20180201CK	WMWBARG_1131
AY01930	20180201CK	WMWBARG_1131
AY01931	20180201CK	WMWBARG_1131
AY01932	20180201DK	WMWBARG_1131
AY01933	20180201DK	WMWBARG_1131
AY01934	20180201DK	WMWBARG_1131

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.
- 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 x2.03 dilution to compensate for any potential matrix effects.
 8. The raw data results include results corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_1131

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>
AY01922	610940	WMWBARG_1131
AY01923	610940	WMWBARG_1131
AY01924	610940	WMWBARG_1131
AY01925	610940	WMWBARG_1131
AY01926	610940	WMWBARG_1131
AY01927	610940	WMWBARG_1131
AY01928	610940	WMWBARG_1131
AY01929	610940	WMWBARG_1131
AY01930	610940	WMWBARG_1131
AY01931	610940	WMWBARG_1131
AY01932	610941	WMWBARG_1131
AY01933	610941	WMWBARG_1131
AY01934	610941	WMWBARG_1131

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

Barry Gypsum

WMWBARG_1131

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>
AY01922	611593	WMWBARG_1131
AY01923	611593	WMWBARG_1131
AY01924	611593	WMWBARG_1131
AY01925	611593	WMWBARG_1131
AY01926	611593	WMWBARG_1131
AY01927	611593	WMWBARG_1131
AY01928	611593	WMWBARG_1131
AY01929	611593	WMWBARG_1131
AY01930	611593	WMWBARG_1131
AY01931	611593	WMWBARG_1131
AY01932	611594	WMWBARG_1131
AY01933	611594	WMWBARG_1131
AY01934	611594	WMWBARG_1131

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.

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: WMWBARG
 Sample Date: 22-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY01922

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0399	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	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: WMWBARG
 Sample Date: 22-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY01922

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 22-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY01922

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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

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

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

Laboratory certification ID: E571114

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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: WMWBARG
 Sample Date: 22-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY01923

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0593	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00287	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 22-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY01923

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	

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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: WMWBARG
 Sample Date: 22-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY01923

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY01924

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0825	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY01924

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY01924

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AY01925

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0846	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AY01925

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AY01925

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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Laboratory certification ID: E571114

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CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY01926

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0747	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00229	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY01926

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115		95.9	70 to 130	0.0956	20
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046		94.6	70 to 130	0.706	20
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115		96.8	70 to 130	2.10	20
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115		91.8	70 to 130	0.210	20
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115		91.3	70 to 130	0.526	20
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115		103	70 to 130	0.158	20
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23		96.1	70 to 130	2.18	20
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115		100	70 to 130	0.903	20
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115		95.4	70 to 130	2.63	20
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115		94.8	70 to 130	1.62	20
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115		101	70 to 130	2.47	20
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115		91.4	70 to 130	0.0766	20
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115		96.2	70 to 130	1.56	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY01926

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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: WMWBARGFB
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY01927

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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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: WMWBARGFB
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY01927

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	

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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: WMWBARGFB
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY01927

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY01928

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.153	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00210	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00596	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY01928

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	

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* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY01928

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY01929

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0884	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00586	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY01929

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY01929

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY01930

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.122	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY01930

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20

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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
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY01930

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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
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 (205) 664-6032 or 6171
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY01931

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.119	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00229	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L

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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: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY01931

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY01931	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0962	0.0977	0.102	0.085 to 0.115	96.2	70 to 130	1.56	20	
AY01931	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.219	0.214	0.0966	0.085 to 0.115	101	70 to 130	2.47	20	
AY01931	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0914	0.0913	0.100	0.085 to 0.115	91.4	70 to 130	0.0766	20	
AY01931	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0968	0.0989	0.101	0.085 to 0.115	96.8	70 to 130	2.10	20	
AY01931	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0918	0.0920	0.0952	0.085 to 0.115	91.8	70 to 130	0.210	20	
AY01931	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0913	0.0908	0.0927	0.085 to 0.115	91.3	70 to 130	0.526	20	
AY01931	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.105	0.105	0.104	0.085 to 0.115	103	70 to 130	0.158	20	
AY01931	Lithium, Total	mg/L	0.0000414	0.022	0.20	0.192	0.188	0.191	0.17 to 0.23	96.1	70 to 130	2.18	20	
AY01931	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.100	0.101	0.106	0.085 to 0.115	100	70 to 130	0.903	20	
AY01931	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0954	0.0979	0.0990	0.085 to 0.115	95.4	70 to 130	2.63	20	
AY01931	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0948	0.0963	0.0980	0.085 to 0.115	94.8	70 to 130	1.62	20	
AY01931	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0959	0.0960	0.0975	0.085 to 0.115	95.9	70 to 130	0.0956	20	
AY01931	Mercury, Total by CVAA	mg/L	0.0000292	0.0005	0.004	0.00378	0.00381	0.00368	0.0034 to 0.0046	94.6	70 to 130	0.706	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 23-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY01931

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY01932

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0746	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00201	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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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: WMWBARG
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY01932

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01934	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0933	0.0970	0.102	0.085 to 0.115	93.3	70 to 130	3.90	20	
AY01934	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0886	0.0924	0.100	0.085 to 0.115	88.6	70 to 130	4.20	20	
AY01934	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0922	0.0952	0.0975	0.085 to 0.115	92.2	70 to 130	3.22	20	
AY01934	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0896	0.0926	0.0952	0.085 to 0.115	89.6	70 to 130	3.30	20	
AY01934	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0923	0.0974	0.101	0.085 to 0.115	92.3	70 to 130	5.38	20	
AY01934	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0943	0.0983	0.0990	0.085 to 0.115	94.3	70 to 130	4.20	20	
AY01934	Lithium, Total	mg/L	-0.00000243	0.022	0.20	0.188	0.187	0.191	0.17 to 0.23	94.0	70 to 130	0.533	20	
AY01934	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.0974	0.102	0.104	0.085 to 0.115	97.4	70 to 130	4.36	20	
AY01934	Mercury, Total by CVAA	mg/L	0.0000293	0.0005	0.004	0.00384	0.00387	0.00373	0.0034 to 0.0046	95.9	70 to 130	0.879	20	
AY01934	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0871	0.0918	0.0927	0.085 to 0.115	87.1	70 to 130	5.27	20	
AY01934	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.0923	0.0954	0.0966	0.085 to 0.115	92.3	70 to 130	3.24	20	
AY01934	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0955	0.0972	0.0980	0.085 to 0.115	95.5	70 to 130	1.75	20	
AY01934	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.0982	0.103	0.106	0.085 to 0.115	98.2	70 to 130	4.30	20	

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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
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY01932

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY01933

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	0.0351	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	J 0.00258	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARG
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY01933

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01934	Lithium, Total	mg/L	-0.00000243	0.022	0.20	0.188	0.187	0.191	0.17 to 0.23	94.0	70 to 130	0.533	20
AY01934	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0933	0.0970	0.102	0.085 to 0.115	93.3	70 to 130	3.90	20
AY01934	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0922	0.0952	0.0975	0.085 to 0.115	92.2	70 to 130	3.22	20
AY01934	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0886	0.0924	0.100	0.085 to 0.115	88.6	70 to 130	4.20	20
AY01934	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0896	0.0926	0.0952	0.085 to 0.115	89.6	70 to 130	3.30	20
AY01934	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.0974	0.102	0.104	0.085 to 0.115	97.4	70 to 130	4.36	20
AY01934	Mercury, Total by CVAA	mg/L	0.0000293	0.0005	0.004	0.00384	0.00387	0.00373	0.0034 to 0.0046	95.9	70 to 130	0.879	20
AY01934	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0923	0.0974	0.101	0.085 to 0.115	92.3	70 to 130	5.38	20
AY01934	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0943	0.0983	0.0990	0.085 to 0.115	94.3	70 to 130	4.20	20
AY01934	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0871	0.0918	0.0927	0.085 to 0.115	87.1	70 to 130	5.27	20
AY01934	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.0923	0.0954	0.0966	0.085 to 0.115	92.3	70 to 130	3.24	20
AY01934	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0955	0.0972	0.0980	0.085 to 0.115	95.5	70 to 130	1.75	20
AY01934	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.0982	0.103	0.106	0.085 to 0.115	98.2	70 to 130	4.30	20

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

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Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY01933

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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: WMWBARGE
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY01934

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/7/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/29/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Fluoride, Total, by Test America	SGC	2/8/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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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
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGE
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY01934

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY01934	Lithium, Total	mg/L	-0.00000243	0.022	0.20	0.188	0.187	0.191	0.17 to 0.23	94.0	70 to 130	0.533	20
AY01934	Lead, Total	mg/L	0.0000107	0.0022	0.10	0.0896	0.0926	0.0952	0.085 to 0.115	89.6	70 to 130	3.30	20
AY01934	Arsenic, Total	mg/L	0.0000227	0.0022	0.10	0.0933	0.0970	0.102	0.085 to 0.115	93.3	70 to 130	3.90	20
AY01934	Thallium, Total	mg/L	-0.00000688	0.00044	0.10	0.0886	0.0924	0.100	0.085 to 0.115	88.6	70 to 130	4.20	20
AY01934	Chromium, Total	mg/L	0.0000691	0.0044	0.10	0.0922	0.0952	0.0975	0.085 to 0.115	92.2	70 to 130	3.22	20
AY01934	Antimony, Total	mg/L	0.0000264	0.00132	0.10	0.0871	0.0918	0.0927	0.085 to 0.115	87.1	70 to 130	5.27	20
AY01934	Barium, Total	mg/L	0.00000302	0.0044	0.10	0.0923	0.0954	0.0966	0.085 to 0.115	92.3	70 to 130	3.24	20
AY01934	Molybdenum, Total	mg/L	0.00000803	0.0044	0.10	0.0955	0.0972	0.0980	0.085 to 0.115	95.5	70 to 130	1.75	20
AY01934	Selenium, Total	mg/L	0.000111	0.0044	0.10	0.0982	0.103	0.106	0.085 to 0.115	98.2	70 to 130	4.30	20
AY01934	Beryllium, Total	mg/L	0.0000307	0.00132	0.10	0.0923	0.0974	0.101	0.085 to 0.115	92.3	70 to 130	5.38	20
AY01934	Cadmium, Total	mg/L	0.00000788	0.00066	0.10	0.0943	0.0983	0.0990	0.085 to 0.115	94.3	70 to 130	4.20	20
AY01934	Cobalt, Total	mg/L	0.00000308	0.0044	0.10	0.0974	0.102	0.104	0.085 to 0.115	97.4	70 to 130	4.36	20
AY01934	Mercury, Total by CVAA	mg/L	0.0000293	0.0005	0.004	0.00384	0.00387	0.00373	0.0034 to 0.0046	95.9	70 to 130	0.879	20

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

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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: WMWBARGE
 Sample Date: 24-Jan-18
 Customer ID:
 Delivery Date: 25-Jan-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY01934

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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

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* Test results for these accredited parameters meet all 2003 NELAC and 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
LCS	Lab Control Sample
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, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (250mL): Anions		
Comments	All Fluoride analysis outsourced to Test America, Pensacola. There is no temperature preservation requirement.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	01/22/2018	14:14	3	Groundwater		AY01922
MW-6	01/22/2018	15:13	3	Groundwater		AY01923
MW-4	01/23/2018	09:44	3	Groundwater		AY01924
MW-4DUP	01/23/2018	09:44	3	Sample Duplicate		AY01925
MW-3	01/23/2018	10:48	3	Groundwater		AY01926
FB-1	01/23/2018	11:04	3	Field Blank		AY01927
MW-2	01/23/2018	11:40	3	Groundwater		AY01928
MW-1	01/23/2018	12:27	3	Groundwater		AY01929
MW-9	01/23/2018	13:38	3	Groundwater		AY01930
MW-10	01/23/2018	14:30	3	Groundwater		AY01931
MW-5	01/24/2018	09:39	3	Groundwater		AY01932
MW-8	01/24/2018	10:43	3	Groundwater		AY01933
EB-1	01/24/2018	10:57	3	Equipment Blank		AY01934

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: 2018.01.25 09:01:36 -0600</small>	01/25/2018 09:01

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp	NA
		Thermometer ID	NA
		pH Strip ID	5881-30150-10-4



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	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Radium Duplicate Collected MW-10. There is no temperature preservation requirement for Radium.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	01/22/2018	14:14	1	Groundwater		AY01935
MW-6	01/22/2018	15:13	1	Groundwater		AY01936
MW-4	01/23/2018	09:44	1	Groundwater		AY01937
MW-4DUP	01/23/2018	09:44	1	Sample Duplicate		AY01938
MW-3	01/23/2018	10:48	1	Groundwater		AY01939
FB-1	01/23/2018	11:04	1	Field Blank		AY01940
MW-2	01/23/2018	11:40	1	Groundwater		AY01941
MW-1	01/23/2018	12:27	1	Groundwater		AY01942
MW-9	01/23/2018	13:38	1	Groundwater		AY01943
MW-10	01/23/2018	14:30	3	Groundwater		AY01944
MW-5	01/24/2018	09:39	1	Groundwater		AY01945
MW-8	01/24/2018	10:43	1	Groundwater		AY01946
EB-1	01/24/2018	10:57	1	Equipment Blank		AY01947

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernmco.com, c=US Date: 2018.01.25 09:08:41 -06'00'</small>	01/25/2018 09:08

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp
		NA
		Thermometer ID
		NA
		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: 400-148888-1

TestAmerica Sample Delivery Group: Barry Gypsum 1131

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

2/7/2018 3:42:29 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

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

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

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

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Method Summary

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

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

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Sample Summary

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-148888-1	AY01922 MW-7	Water	01/22/18 14:14	01/29/18 16:15
400-148888-2	AY01923 MW-6	Water	01/22/18 15:13	01/29/18 16:15
400-148888-3	AY01924 MW-4	Water	01/23/18 09:44	01/29/18 16:15
400-148888-4	AY01925 MW-4 DUP	Water	01/23/18 09:44	01/29/18 16:15
400-148888-5	AY01926 MW-3	Water	01/23/18 10:48	01/29/18 16:15
400-148888-6	AY01927 FB-1	Water	01/23/18 11:04	01/29/18 16:15
400-148888-7	AY01928 MW-2	Water	01/23/18 11:40	01/29/18 16:15
400-148888-8	AY01929 MW-1	Water	01/23/18 12:27	01/29/18 16:15
400-148888-9	AY01930 MW-9	Water	01/23/18 13:38	01/29/18 16:15
400-148888-10	AY01931 MW-10	Water	01/23/18 14:30	01/29/18 16:15
400-148888-11	AY01932 MW-5	Water	01/24/18 09:39	01/29/18 16:15
400-148888-12	AY01933 MW-8	Water	01/24/18 10:43	01/29/18 16:15
400-148888-13	AY01934 EB-1	Water	01/24/18 10:57	01/29/18 16:15

Client Sample Results

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

TestAmerica Job ID: 400-148888-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01922 MW-7

Date Collected: 01/22/18 14:14

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 08:35	1

Client Sample ID: AY01923 MW-6

Date Collected: 01/22/18 15:13

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 08:37	1

Client Sample ID: AY01924 MW-4

Date Collected: 01/23/18 09:44

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 10:09	1

Client Sample ID: AY01925 MW-4 DUP

Date Collected: 01/23/18 09:44

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 10:27	1

Client Sample ID: AY01926 MW-3

Date Collected: 01/23/18 10:48

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 10:30	1

Client Sample ID: AY01927 FB-1

Date Collected: 01/23/18 11:04

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 10:18	1

Client Sample ID: AY01928 MW-2

Date Collected: 01/23/18 11:40

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.040	J	0.10	0.032	mg/L			02/05/18 10:34	1

Client Sample Results

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

Client Sample ID: AY01929 MW-1

Date Collected: 01/23/18 12:27

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-8

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 10:38	1

Client Sample ID: AY01930 MW-9

Date Collected: 01/23/18 13:38

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-9

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	-		02/05/18 10:42	1

Client Sample ID: AY01931 MW-10

Date Collected: 01/23/18 14:30

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-10

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.080	J	0.10	0.032	mg/L	-		02/05/18 10:46	1

Client Sample ID: AY01932 MW-5

Date Collected: 01/24/18 09:39

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-11

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 10:05	1

Client Sample ID: AY01933 MW-8

Date Collected: 01/24/18 10:43

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-12

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 12:33	1

Client Sample ID: AY01934 EB-1

Date Collected: 01/24/18 10:57

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-13

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 12:53	1

Definitions/Glossary

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

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	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 Barry

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

Client Sample ID: AY01922 MW-7

Date Collected: 01/22/18 14:14

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-1

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	385229	02/05/18 08:35	RRC	TAL PEN

Client Sample ID: AY01923 MW-6

Date Collected: 01/22/18 15:13

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-2

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	385229	02/05/18 08:37	RRC	TAL PEN

Client Sample ID: AY01924 MW-4

Date Collected: 01/23/18 09:44

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-3

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	385257	02/05/18 10:09	RRC	TAL PEN

Client Sample ID: AY01925 MW-4 DUP

Date Collected: 01/23/18 09:44

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-4

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	385257	02/05/18 10:27	RRC	TAL PEN

Client Sample ID: AY01926 MW-3

Date Collected: 01/23/18 10:48

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-5

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	385257	02/05/18 10:30	RRC	TAL PEN

Client Sample ID: AY01927 FB-1

Date Collected: 01/23/18 11:04

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148888-6

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	385257	02/05/18 10:18	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

Client Sample ID: AY01928 MW-2

Lab Sample ID: 400-148888-7

Date Collected: 01/23/18 11:40

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:34	RRC	TAL PEN

Client Sample ID: AY01929 MW-1

Lab Sample ID: 400-148888-8

Date Collected: 01/23/18 12:27

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:38	RRC	TAL PEN

Client Sample ID: AY01930 MW-9

Lab Sample ID: 400-148888-9

Date Collected: 01/23/18 13:38

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:42	RRC	TAL PEN

Client Sample ID: AY01931 MW-10

Lab Sample ID: 400-148888-10

Date Collected: 01/23/18 14:30

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:46	RRC	TAL PEN

Client Sample ID: AY01932 MW-5

Lab Sample ID: 400-148888-11

Date Collected: 01/24/18 09:39

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:05	RRC	TAL PEN

Client Sample ID: AY01933 MW-8

Lab Sample ID: 400-148888-12

Date Collected: 01/24/18 10:43

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:33	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

Client Sample ID: AY01934 EB-1

Lab Sample ID: 400-148888-13

Date Collected: 01/24/18 10:57

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:53	RRC	TAL PEN

Laboratory References:

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

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QC Association Summary

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

TestAmerica Job ID: 400-148888-1
SDG: Barry Gypsum 1131

General Chemistry

Analysis Batch: 385229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148888-1	AY01922 MW-7	Total/NA	Water	SM 4500 F C	
400-148888-2	AY01923 MW-6	Total/NA	Water	SM 4500 F C	
MB 400-385229/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-385229/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-148887-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-148887-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 385257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148888-3	AY01924 MW-4	Total/NA	Water	SM 4500 F C	
400-148888-4	AY01925 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-148888-5	AY01926 MW-3	Total/NA	Water	SM 4500 F C	
400-148888-6	AY01927 FB-1	Total/NA	Water	SM 4500 F C	
400-148888-7	AY01928 MW-2	Total/NA	Water	SM 4500 F C	
400-148888-8	AY01929 MW-1	Total/NA	Water	SM 4500 F C	
400-148888-9	AY01930 MW-9	Total/NA	Water	SM 4500 F C	
400-148888-10	AY01931 MW-10	Total/NA	Water	SM 4500 F C	
400-148888-11	AY01932 MW-5	Total/NA	Water	SM 4500 F C	
MB 400-385257/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-385257/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-148888-6 MS	AY01927 FB-1	Total/NA	Water	SM 4500 F C	
400-148888-6 MSD	AY01927 FB-1	Total/NA	Water	SM 4500 F C	

Analysis Batch: 385289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148888-12	AY01933 MW-8	Total/NA	Water	SM 4500 F C	
400-148888-13	AY01934 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-385289/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-385289/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-148887-A-17 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-148887-A-17 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-148887-A-21 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-148887-A-21 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-148888-13 MS	AY01934 EB-1	Total/NA	Water	SM 4500 F C	
400-148888-13 MSD	AY01934 EB-1	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

TestAmerica Job ID: 400-148888-1
 SDG: Barry Gypsum 1131

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-385229/3
Matrix: Water
Analysis Batch: 385229

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			02/05/18 07:18	1

Lab Sample ID: LCS 400-385229/4
Matrix: Water
Analysis Batch: 385229

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: 400-148887-A-1 MS
Matrix: Water
Analysis Batch: 385229

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.19		1.00	1.21		mg/L		102	75 - 125

Lab Sample ID: 400-148887-A-1 MSD
Matrix: Water
Analysis Batch: 385229

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.19		1.00	1.21		mg/L		102	75 - 125	0	4

Lab Sample ID: MB 400-385257/3
Matrix: Water
Analysis Batch: 385257

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			02/05/18 09:20	1

Lab Sample ID: LCS 400-385257/4
Matrix: Water
Analysis Batch: 385257

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: 400-148888-6 MS
Matrix: Water
Analysis Batch: 385257

Client Sample ID: AY01927 FB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	FB Result	FB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	1.00		mg/L		100	75 - 125

Lab Sample ID: 400-148888-6 MSD
Matrix: Water
Analysis Batch: 385257

Client Sample ID: AY01927 FB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	FB Result	FB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	1.00		mg/L		100	75 - 125	0	4

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-148888-1
 SDG: Barry Gypsum 1131

Lab Sample ID: MB 400-385289/3
Matrix: Water
Analysis Batch: 385289

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			02/05/18 11:58	1

Lab Sample ID: LCS 400-385289/4
Matrix: Water
Analysis Batch: 385289

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: 400-148887-A-17 MS
Matrix: Water
Analysis Batch: 385289

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.050	J	1.00	1.06		mg/L		101	75 - 125

Lab Sample ID: 400-148887-A-17 MSD
Matrix: Water
Analysis Batch: 385289

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
Fluoride	0.050	J	1.00	1.06		mg/L		101	75 - 125	0	4

Lab Sample ID: 400-148887-A-21 MS
Matrix: Water
Analysis Batch: 385289

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	J	1.00	1.04		mg/L		100	75 - 125

Lab Sample ID: 400-148887-A-21 MSD
Matrix: Water
Analysis Batch: 385289

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
Fluoride	0.040	J	1.00	1.04		mg/L		100	75 - 125	0	4

Lab Sample ID: 400-148888-13 MS
Matrix: Water
Analysis Batch: 385289

Client Sample ID: AY01934 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	1.02		mg/L		102	75 - 125

Lab Sample ID: 400-148888-13 MSD
Matrix: Water
Analysis Batch: 385289

Client Sample ID: AY01934 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Fluoride	<0.032		1.00	1.00		mg/L		100	75 - 125	2	4

TestAmerica Pensacola

Chain of Custody Record

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State: AL, Zip: 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Barry Gypsum 1131		Lab P.M.: Whitmire, Cheyenne R Client Contact: Anthony Goggins Sarah Copeland E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): 400-56525-24537.1 Page: Page 1 of 1 Job #: 400-148888	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007143 SOW#:		Analysis Requested			
Routine		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 - EDTA 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) Other:			
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (Water, Soil, Cement, Bit, Tissue, Air) Preservation Code: Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) SM 4500 F.C SM 4500 C.F.E SM 4500 SO4.E Total Number of containers		Special Instructions/Note: MW-7 MW-6 MW-4 MW-4 Dup (Sample Duplicate) MW-3 FB-1 (Field Blank) MW-2 MW-1 MW-9 MW-10 MW-5 MW-8 EB-1 (Equipment Blank)			
<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: Relinquished by: Sarah Copeland Date/Time: 1/29/2018, 1350 Company: APC		Method of Shipment: Date/Time: Company:			
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:			
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: 1-29-18 16:15 Company: H-PCO			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooling Temperature: 20 and Other Remarks:			



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-148888-1
SDG Number: Barry Gypsum 1131

Login Number: 148888

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	19.1°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Barry

TestAmerica Job ID: 400-148888-1
 SDG: Barry Gypsum 1131

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	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

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Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-148881-1

TestAmerica Sample Delivery Group: Barry Gypsum 1131

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

2/28/2018 3:38:57 PM

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

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Case Narrative

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

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

Job ID: 400-148881-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-148881-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-349178. Sample aliquots reduced due to limited sample volume. AY01935 MW-7 (400-148881-1), AY01936 MW-6 (400-148881-2), AY01937 MW-4 (400-148881-3), AY01938 MW-4 DUP (400-148881-4), AY01939 MW-3 (400-148881-5), AY01940 FB-1 (400-148881-6), AY01941 MW-2 (400-148881-7), AY01942 MW-1 (400-148881-8), AY01943 MW-9 (400-148881-9), AY01944 MW-10 (400-148881-10), AY01944 MW-10 (400-148881-10[DU]), AY01945 MW-5 (400-148881-11), AY01946 MW-8 (400-148881-12) and AY01947 EB-1 (400-148881-13)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-349176. Sample aliquots reduced due to limited sample aliquot. AY01935 MW-7 (400-148881-1), AY01936 MW-6 (400-148881-2), AY01937 MW-4 (400-148881-3), AY01938 MW-4 DUP (400-148881-4), AY01939 MW-3 (400-148881-5), AY01940 FB-1 (400-148881-6), AY01941 MW-2 (400-148881-7), AY01942 MW-1 (400-148881-8), AY01943 MW-9 (400-148881-9), AY01944 MW-10 (400-148881-10), AY01944 MW-10 (400-148881-10[DU]), AY01945 MW-5 (400-148881-11), AY01946 MW-8 (400-148881-12) and AY01947 EB-1 (400-148881-13)

Method Summary

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

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

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 Barry

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-148881-1	AY01935 MW-7	Water	01/22/18 14:14	01/29/18 16:15
400-148881-2	AY01936 MW-6	Water	01/22/18 15:13	01/29/18 16:15
400-148881-3	AY01937 MW-4	Water	01/23/18 09:44	01/29/18 16:15
400-148881-4	AY01938 MW-4 DUP	Water	01/23/18 09:44	01/29/18 16:15
400-148881-5	AY01939 MW-3	Water	01/23/18 10:48	01/29/18 16:15
400-148881-6	AY01940 FB-1	Water	01/23/18 11:04	01/29/18 16:15
400-148881-7	AY01941 MW-2	Water	01/23/18 11:40	01/29/18 16:15
400-148881-8	AY01942 MW-1	Water	01/23/18 12:27	01/29/18 16:15
400-148881-9	AY01943 MW-9	Water	01/23/18 13:38	01/29/18 16:15
400-148881-10	AY01944 MW-10	Water	01/23/18 14:30	01/29/18 16:15
400-148881-11	AY01945 MW-5	Water	01/24/18 09:39	01/29/18 16:15
400-148881-12	AY01946 MW-8	Water	01/24/18 10:43	01/29/18 16:15
400-148881-13	AY01947 EB-1	Water	01/24/18 10:57	01/29/18 16:15

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01935 MW-7

Lab Sample ID: 400-148881-1

Date Collected: 01/22/18 14:14

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.154		0.0762	0.0774	1.00	0.0745	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/01/18 12:41	02/23/18 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	0.572		0.299	0.303	1.00	0.445	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	90.1		40 - 110					02/01/18 13:26	02/07/18 14:02	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	0.726		0.309	0.313	5.00	0.445	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01936 MW-6

Lab Sample ID: 400-148881-2

Date Collected: 01/22/18 15:13

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.281		0.0990	0.102	1.00	0.0838	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					02/01/18 12:41	02/23/18 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	0.533		0.270	0.274	1.00	0.398	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	90.5		40 - 110					02/01/18 13:26	02/07/18 14:02	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	0.814		0.288	0.292	5.00	0.398	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01937 MW-4

Lab Sample ID: 400-148881-3

Date Collected: 01/23/18 09:44

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.317		0.106	0.110	1.00	0.0877	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 12:41	02/23/18 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	0.999		0.318	0.331	1.00	0.413	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	86.7		40 - 110					02/01/18 13:26	02/07/18 14:02	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	1.32		0.335	0.349	5.00	0.413	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01938 MW-4 DUP

Lab Sample ID: 400-148881-4

Date Collected: 01/23/18 09:44

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.404		0.121	0.126	1.00	0.0860	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 12:41	02/23/18 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	0.434		0.272	0.275	1.00	0.416	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	89.3		40 - 110					02/01/18 13:26	02/07/18 14:02	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	0.839		0.298	0.302	5.00	0.416	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01939 MW-3

Lab Sample ID: 400-148881-5

Date Collected: 01/23/18 10:48

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.203		0.0917	0.0935	1.00	0.0852	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/01/18 12:41	02/23/18 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	0.355	U	0.301	0.303	1.00	0.481	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	88.2		40 - 110					02/01/18 13:26	02/07/18 14:02	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	0.558		0.315	0.317	5.00	0.481	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01940 FB-1

Lab Sample ID: 400-148881-6

Date Collected: 01/23/18 11:04

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0838	U	0.0726	0.0730	1.00	0.107	pCi/L	02/01/18 12:41	02/23/18 08:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/01/18 12:41	02/23/18 08:31	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.269	U	0.271	0.272	1.00	0.440	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	89.3		40 - 110					02/01/18 13:26	02/07/18 14:02	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	0.353	U	0.281	0.282	5.00	0.440	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01941 MW-2

Lab Sample ID: 400-148881-7

Date Collected: 01/23/18 11:40

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.558		0.148	0.157	1.00	0.120	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.111	U	0.234	0.234	1.00	0.403	pCi/L	02/01/18 13:26	02/07/18 14:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/01/18 13:26	02/07/18 14:02	1
Y Carrier	84.9		40 - 110					02/01/18 13:26	02/07/18 14:02	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	0.669		0.277	0.282	5.00	0.403	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01942 MW-1

Lab Sample ID: 400-148881-8

Date Collected: 01/23/18 12:27

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.366		0.125	0.129	1.00	0.108	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.147	U	0.274	0.275	1.00	0.467	pCi/L	02/01/18 13:26	02/07/18 14:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/01/18 13:26	02/07/18 14:03	1
Y Carrier	84.9		40 - 110					02/01/18 13:26	02/07/18 14:03	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	0.513		0.301	0.304	5.00	0.467	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01943 MW-9

Lab Sample ID: 400-148881-9

Date Collected: 01/23/18 13:38

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.732		0.172	0.184	1.00	0.117	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.429	U	0.299	0.301	1.00	0.466	pCi/L	02/01/18 13:26	02/07/18 14:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					02/01/18 13:26	02/07/18 14:03	1
Y Carrier	87.1		40 - 110					02/01/18 13:26	02/07/18 14:03	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	1.16		0.345	0.353	5.00	0.466	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01944 MW-10

Lab Sample ID: 400-148881-10

Date Collected: 01/23/18 14:30

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.716		0.168	0.180	1.00	0.112	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.646		0.310	0.315	1.00	0.459	pCi/L	02/01/18 13:26	02/07/18 14:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					02/01/18 13:26	02/07/18 14:03	1
Y Carrier	89.0		40 - 110					02/01/18 13:26	02/07/18 14:03	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		0.353	0.363	5.00	0.459	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01945 MW-5
Date Collected: 01/24/18 09:39
Date Received: 01/29/18 16:15

Lab Sample ID: 400-148881-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220		0.102	0.104	1.00	0.110	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.346	U	0.245	0.247	1.00	0.380	pCi/L	02/01/18 13:26	02/07/18 14:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 13:26	02/07/18 14:04	1
Y Carrier	90.1		40 - 110					02/01/18 13:26	02/07/18 14:04	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	0.566		0.265	0.268	5.00	0.380	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01946 MW-8

Lab Sample ID: 400-148881-12

Date Collected: 01/24/18 10:43

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.249		0.105	0.107	1.00	0.102	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.162	U	0.252	0.252	1.00	0.424	pCi/L	02/01/18 13:26	02/07/18 14:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					02/01/18 13:26	02/07/18 14:04	1
Y Carrier	87.5		40 - 110					02/01/18 13:26	02/07/18 14:04	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	0.411	U	0.273	0.274	5.00	0.424	pCi/L		02/26/18 17:18	1

Client Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01947 EB-1

Lab Sample ID: 400-148881-13

Date Collected: 01/24/18 10:57

Matrix: Water

Date Received: 01/29/18 16:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0403	U	0.0624	0.0625	1.00	0.108	pCi/L	02/01/18 12:41	02/23/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 12:41	02/23/18 08:33	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.232	U	0.238	0.239	1.00	0.388	pCi/L	02/01/18 13:26	02/07/18 14:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 13:26	02/07/18 14:04	1
Y Carrier	93.5		40 - 110					02/01/18 13:26	02/07/18 14:04	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	0.272	U	0.246	0.247	5.00	0.388	pCi/L		02/26/18 17:18	1

Definitions/Glossary

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

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

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 Barry

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

Client Sample ID: AY01935 MW-7

Date Collected: 01/22/18 14:14

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148881-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352682	02/23/18 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01936 MW-6

Date Collected: 01/22/18 15:13

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148881-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352682	02/23/18 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01937 MW-4

Date Collected: 01/23/18 09:44

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148881-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352682	02/23/18 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01938 MW-4 DUP

Date Collected: 01/23/18 09:44

Date Received: 01/29/18 16:15

Lab Sample ID: 400-148881-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352682	02/23/18 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01939 MW-3

Lab Sample ID: 400-148881-5

Date Collected: 01/23/18 10:48

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352682	02/23/18 08:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01940 FB-1

Lab Sample ID: 400-148881-6

Date Collected: 01/23/18 11:04

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352682	02/23/18 08:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01941 MW-2

Lab Sample ID: 400-148881-7

Date Collected: 01/23/18 11:40

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:02	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01942 MW-1

Lab Sample ID: 400-148881-8

Date Collected: 01/23/18 12:27

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Client Sample ID: AY01943 MW-9

Lab Sample ID: 400-148881-9

Date Collected: 01/23/18 13:38

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01944 MW-10

Lab Sample ID: 400-148881-10

Date Collected: 01/23/18 14:30

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:03	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01945 MW-5

Lab Sample ID: 400-148881-11

Date Collected: 01/24/18 09:39

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Client Sample ID: AY01946 MW-8

Lab Sample ID: 400-148881-12

Date Collected: 01/24/18 10:43

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

Client Sample ID: AY01947 EB-1

Lab Sample ID: 400-148881-13

Date Collected: 01/24/18 10:57

Matrix: Water

Date Received: 01/29/18 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349176	02/01/18 12:41	SJC	TAL SL
Total/NA	Analysis	9315		1	352690	02/23/18 08:33	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349178	02/01/18 13:26	SJC	TAL SL
Total/NA	Analysis	9320		1	349940	02/07/18 14:04	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	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 Barry

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

Rad

Prep Batch: 349176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148881-1	AY01935 MW-7	Total/NA	Water	PrecSep-21	
400-148881-2	AY01936 MW-6	Total/NA	Water	PrecSep-21	
400-148881-3	AY01937 MW-4	Total/NA	Water	PrecSep-21	
400-148881-4	AY01938 MW-4 DUP	Total/NA	Water	PrecSep-21	
400-148881-5	AY01939 MW-3	Total/NA	Water	PrecSep-21	
400-148881-6	AY01940 FB-1	Total/NA	Water	PrecSep-21	
400-148881-7	AY01941 MW-2	Total/NA	Water	PrecSep-21	
400-148881-8	AY01942 MW-1	Total/NA	Water	PrecSep-21	
400-148881-9	AY01943 MW-9	Total/NA	Water	PrecSep-21	
400-148881-10	AY01944 MW-10	Total/NA	Water	PrecSep-21	
400-148881-11	AY01945 MW-5	Total/NA	Water	PrecSep-21	
400-148881-12	AY01946 MW-8	Total/NA	Water	PrecSep-21	
400-148881-13	AY01947 EB-1	Total/NA	Water	PrecSep-21	
MB 160-349176/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-349176/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-148881-10 DU	AY01944 MW-10	Total/NA	Water	PrecSep-21	

Prep Batch: 349178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148881-1	AY01935 MW-7	Total/NA	Water	PrecSep_0	
400-148881-2	AY01936 MW-6	Total/NA	Water	PrecSep_0	
400-148881-3	AY01937 MW-4	Total/NA	Water	PrecSep_0	
400-148881-4	AY01938 MW-4 DUP	Total/NA	Water	PrecSep_0	
400-148881-5	AY01939 MW-3	Total/NA	Water	PrecSep_0	
400-148881-6	AY01940 FB-1	Total/NA	Water	PrecSep_0	
400-148881-7	AY01941 MW-2	Total/NA	Water	PrecSep_0	
400-148881-8	AY01942 MW-1	Total/NA	Water	PrecSep_0	
400-148881-9	AY01943 MW-9	Total/NA	Water	PrecSep_0	
400-148881-10	AY01944 MW-10	Total/NA	Water	PrecSep_0	
400-148881-11	AY01945 MW-5	Total/NA	Water	PrecSep_0	
400-148881-12	AY01946 MW-8	Total/NA	Water	PrecSep_0	
400-148881-13	AY01947 EB-1	Total/NA	Water	PrecSep_0	
MB 160-349178/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-349178/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-148881-10 DU	AY01944 MW-10	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-349176/1-A
Matrix: Water
Analysis Batch: 352682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349176

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.001516	U	0.0319	0.0319	1.00	0.0763	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	107		40 - 110		02/01/18 12:41	02/23/18 08:30	1			

Lab Sample ID: LCS 160-349176/2-A
Matrix: Water
Analysis Batch: 352682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349176

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.7	13.88		1.41	1.00	0.0787	pCi/L	88	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	107		40 - 110		02/01/18 12:41	02/23/18 08:30	1		

Lab Sample ID: 400-148881-10 DU
Matrix: Water
Analysis Batch: 352690

Client Sample ID: AY01944 MW-10
Prep Type: Total/NA
Prep Batch: 349176

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.716		0.7532		0.179	1.00	0.0815	pCi/L	0.10	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	105		40 - 110		02/01/18 13:26	02/07/18 14:01	1			

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-349178/1-A
Matrix: Water
Analysis Batch: 349940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349178

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.7644		0.305	0.313	1.00	0.433	pCi/L	02/01/18 13:26	02/07/18 14:01	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	107		40 - 110		02/01/18 13:26	02/07/18 14:01	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	91.2		40 - 110		02/01/18 13:26	02/07/18 14:01	1			

QC Sample Results

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

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

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

Lab Sample ID: LCS 160-349178/2-A
Matrix: Water
Analysis Batch: 349940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349178

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	11.4	10.55		1.22	1.00	0.396	pCi/L	92	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	107		40 - 110
Y Carrier	86.7		40 - 110

Lab Sample ID: 400-148881-10 DU
Matrix: Water
Analysis Batch: 349940

Client Sample ID: AY01944 MW-10
Prep Type: Total/NA
Prep Batch: 349178

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.646		0.5377		0.270	1.00	0.386	pCi/L	0.19	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	90.5		40 - 110

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

Lab Sample ID: 400-148881-10 DU
Matrix: Water
Analysis Batch: 353066


Client Sample ID: AY01944 MW-10
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	1.36		1.291		0.324	5.00	0.386	pCi/L	0.10	

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: Callera State: AL, Zip: 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Barry Gypsum 1131		Lab PM: Whitmire, Cheyenne R Carrier Tracking No(s): E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1 Page: Page 1 of 1 Job #: 400-149981					
Due Date Requested: TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSO#:		Analysis Requested  400-148881 COC							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-site, Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
AY01935	1/22/18	1414	G	Water		X	X	1	MW-7
AY01936	1/22/18	1513	G	Water		X	X	1	MW-6
AY01937	1/23/18	0944	G	Water		X	X	1	MW-4
AY01938	1/23/18	0944	G	Water		X	X	1	MW-4 Dup (Sample Duplicate)
AY01939	1/23/18	1048	G	Water		X	X	1	MW-3
AY01940	1/23/18	1104	G	Water		X	X	1	FB-1 (Field Blank)
AY01941	1/23/18	1140	G	Water		X	X	1	MW-2
AY01942	1/23/18	1227	G	Water		X	X	1	MW-1
AY01943	1/23/18	1338	G	Water		X	X	1	MW-9
AY01944	1/23/18	1430	G	Water		Y	X	3	MW-10
AY01945	1/24/18	0939	G	Water		X	X	1	MW-5
AY01946	1/24/18	1043	G	Water		X	X	1	MW-8
AY01947	1/24/18	1057	G	Water		X	X	1	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 Deliverable Requested: I, II, III, IV, Other (specify)									
Empty Kit Relinquished by: Relinquished by: Sarah Copeland Date/Time: 1/29/2018, 1355					Method of Shipment: Date/Time: 1/29/18 11:45 Company:				
Relinquished by: Date/Time:					Received by: Date/Time:				
Relinquished by: Date/Time:					Received by: Date/Time:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No.:				
Special Instructions/OC Requirements: 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									
Cooler Temperature(s) °C and Other Remarks:									

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-148881-1
SDG Number: Barry Gypsum 1131

Login Number: 148881

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	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-148881-1
SDG Number: Barry Gypsum 1131

Login Number: 148881
List Number: 2
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 01/31/18 11:52 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.0,17.0,17.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	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 Barry

TestAmerica Job ID: 400-148881-1
 SDG: Barry Gypsum 1131

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	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
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

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
Arizona	State Program	9	AZ0813	12-08-18
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	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542018-1	07-31-18
New Jersey	NELAP	2	MO002	06-30-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-148881-1
SDG: Barry Gypsum 1131

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
New York	NELAP	2	11616	03-31-18 *
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-21-18 *
South Carolina	State Program	4	85002001	06-30-18
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-1	1/23/2018 12:10	51.1	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:10	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:10	0.31	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:10	159.1	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:10	4.8	pH	pH
BY-GSA-MW-1	1/23/2018 12:10	20.85	C	Temperature
BY-GSA-MW-1	1/23/2018 12:10	0.44	NTU	Turbidity
BY-GSA-MW-1	1/23/2018 12:15	51.4	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:15	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:15	0.25	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:15	159.5	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:15	4.79	pH	pH
BY-GSA-MW-1	1/23/2018 12:15	21.06	C	Temperature
BY-GSA-MW-1	1/23/2018 12:15	0.43	NTU	Turbidity
BY-GSA-MW-1	1/23/2018 12:20	51.5	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:20	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:20	0.2	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:20	159.4	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:20	4.8	pH	pH
BY-GSA-MW-1	1/23/2018 12:20	21.06	C	Temperature
BY-GSA-MW-1	1/23/2018 12:20	0.44	NTU	Turbidity
BY-GSA-MW-1	1/23/2018 12:25	51.7	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:25	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:25	0.19	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:25	161.6	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:25	4.79	pH	pH
BY-GSA-MW-1	1/23/2018 12:25	20.93	C	Temperature
BY-GSA-MW-1	1/23/2018 12:25	0.36	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-2	1/23/2018 11:24	68.9	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:24	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:24	6.63	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:24	169.5	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:24	4.64	pH	pH
BY-GSA-MW-2	1/23/2018 11:24	20.3	C	Temperature
BY-GSA-MW-2	1/23/2018 11:24	1.25	NTU	Turbidity
BY-GSA-MW-2	1/23/2018 11:29	66.3	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:29	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:29	6.51	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:29	167.3	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:29	4.65	pH	pH
BY-GSA-MW-2	1/23/2018 11:29	20.26	C	Temperature
BY-GSA-MW-2	1/23/2018 11:29	1.5	NTU	Turbidity
BY-GSA-MW-2	1/23/2018 11:34	66.3	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:34	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:34	6.51	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:34	166.6	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:34	4.65	pH	pH
BY-GSA-MW-2	1/23/2018 11:34	20.19	C	Temperature
BY-GSA-MW-2	1/23/2018 11:34	1.24	NTU	Turbidity
BY-GSA-MW-2	1/23/2018 11:39	63.9	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:39	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:39	6.47	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:39	166.6	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:39	4.67	pH	pH
BY-GSA-MW-2	1/23/2018 11:39	20.18	C	Temperature
BY-GSA-MW-2	1/23/2018 11:39	0.63	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-3	1/23/2018 10:31	46.5	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:31	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:31	5.86	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:31	159.8	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:31	4.89	pH	pH
BY-GSA-MW-3	1/23/2018 10:31	20.62	C	Temperature
BY-GSA-MW-3	1/23/2018 10:31	0.71	NTU	Turbidity
BY-GSA-MW-3	1/23/2018 10:36	46.3	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:36	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:36	5.81	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:36	155.7	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:36	4.91	pH	pH
BY-GSA-MW-3	1/23/2018 10:36	20.62	C	Temperature
BY-GSA-MW-3	1/23/2018 10:36	0.36	NTU	Turbidity
BY-GSA-MW-3	1/23/2018 10:41	46	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:41	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:41	5.77	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:41	153.7	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:41	4.9	pH	pH
BY-GSA-MW-3	1/23/2018 10:41	20.62	C	Temperature
BY-GSA-MW-3	1/23/2018 10:41	0.16	NTU	Turbidity
BY-GSA-MW-3	1/23/2018 10:46	46	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:46	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:46	5.76	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:46	153.3	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:46	4.91	pH	pH
BY-GSA-MW-3	1/23/2018 10:46	20.61	C	Temperature
BY-GSA-MW-3	1/23/2018 10:46	0.13	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-4	1/23/2018 9:27	46.7	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:27	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:27	6.69	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:27	163.1	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:27	4.87	pH	pH
BY-GSA-MW-4	1/23/2018 9:27	20.21	C	Temperature
BY-GSA-MW-4	1/23/2018 9:27	4.76	NTU	Turbidity
BY-GSA-MW-4	1/23/2018 9:32	46.2	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:32	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:32	6.5	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:32	163.2	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:32	4.85	pH	pH
BY-GSA-MW-4	1/23/2018 9:32	20.38	C	Temperature
BY-GSA-MW-4	1/23/2018 9:32	2.8	NTU	Turbidity
BY-GSA-MW-4	1/23/2018 9:37	45.4	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:37	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:37	6.35	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:37	163.4	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:37	4.84	pH	pH
BY-GSA-MW-4	1/23/2018 9:37	20.43	C	Temperature
BY-GSA-MW-4	1/23/2018 9:37	2.36	NTU	Turbidity
BY-GSA-MW-4	1/23/2018 9:42	44.7	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:42	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:42	6.16	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:42	162.6	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:42	4.85	pH	pH
BY-GSA-MW-4	1/23/2018 9:42	20.48	C	Temperature
BY-GSA-MW-4	1/23/2018 9:42	1.31	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-5	1/24/2018 9:22	44.6	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:22	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:22	6.09	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:22	146.8	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:22	5.3	pH	pH
BY-GSA-MW-5	1/24/2018 9:22	19.8	C	Temperature
BY-GSA-MW-5	1/24/2018 9:22	0.83	NTU	Turbidity
BY-GSA-MW-5	1/24/2018 9:27	44.6	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:27	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:27	6.07	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:27	148.4	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:27	4.92	pH	pH
BY-GSA-MW-5	1/24/2018 9:27	19.86	C	Temperature
BY-GSA-MW-5	1/24/2018 9:27	0.72	NTU	Turbidity
BY-GSA-MW-5	1/24/2018 9:32	44.3	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:32	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:32	6.01	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:32	148.3	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:32	4.88	pH	pH
BY-GSA-MW-5	1/24/2018 9:32	19.82	C	Temperature
BY-GSA-MW-5	1/24/2018 9:32	0.55	NTU	Turbidity
BY-GSA-MW-5	1/24/2018 9:37	44.4	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:37	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:37	6.02	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:37	146.9	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:37	4.86	pH	pH
BY-GSA-MW-5	1/24/2018 9:37	19.86	C	Temperature
BY-GSA-MW-5	1/24/2018 9:37	0.39	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-6	1/22/2018 14:51	52.9	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 14:51	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 14:51	6.19	mg/L	DO
BY-GSA-MW-6	1/22/2018 14:51	149.8	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 14:51	5.51	pH	pH
BY-GSA-MW-6	1/22/2018 14:51	22.04	C	Temperature
BY-GSA-MW-6	1/22/2018 14:51	0.99	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 14:56	54.7	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 14:56	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 14:56	6.09	mg/L	DO
BY-GSA-MW-6	1/22/2018 14:56	142.6	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 14:56	5.56	pH	pH
BY-GSA-MW-6	1/22/2018 14:56	22.09	C	Temperature
BY-GSA-MW-6	1/22/2018 14:56	1.17	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 15:01	56.3	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 15:01	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 15:01	6.04	mg/L	DO
BY-GSA-MW-6	1/22/2018 15:01	138.1	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 15:01	5.62	pH	pH
BY-GSA-MW-6	1/22/2018 15:01	22.13	C	Temperature
BY-GSA-MW-6	1/22/2018 15:01	0.88	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 15:06	58.7	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 15:06	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 15:06	6	mg/L	DO
BY-GSA-MW-6	1/22/2018 15:06	134.7	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 15:06	5.68	pH	pH
BY-GSA-MW-6	1/22/2018 15:06	22.18	C	Temperature
BY-GSA-MW-6	1/22/2018 15:06	0.53	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 15:11	56.2	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 15:11	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 15:11	5.98	mg/L	DO
BY-GSA-MW-6	1/22/2018 15:11	134.6	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 15:11	5.66	pH	pH
BY-GSA-MW-6	1/22/2018 15:11	22.18	C	Temperature
BY-GSA-MW-6	1/22/2018 15:11	0.46	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-7	1/22/2018 13:57	38	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 13:57	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 13:57	4.44	mg/L	DO
BY-GSA-MW-7	1/22/2018 13:57	161.9	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 13:57	5.13	pH	pH
BY-GSA-MW-7	1/22/2018 13:57	20.97	C	Temperature
BY-GSA-MW-7	1/22/2018 13:57	2.36	NTU	Turbidity
BY-GSA-MW-7	1/22/2018 14:02	37.8	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 14:02	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 14:02	4.38	mg/L	DO
BY-GSA-MW-7	1/22/2018 14:02	162.8	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 14:02	5.06	pH	pH
BY-GSA-MW-7	1/22/2018 14:02	20.95	C	Temperature
BY-GSA-MW-7	1/22/2018 14:02	2.71	NTU	Turbidity
BY-GSA-MW-7	1/22/2018 14:07	38.1	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 14:07	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 14:07	4.34	mg/L	DO
BY-GSA-MW-7	1/22/2018 14:07	161.5	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 14:07	5.06	pH	pH
BY-GSA-MW-7	1/22/2018 14:07	20.92	C	Temperature
BY-GSA-MW-7	1/22/2018 14:07	1.28	NTU	Turbidity
BY-GSA-MW-7	1/22/2018 14:12	38.4	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 14:12	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 14:12	4.34	mg/L	DO
BY-GSA-MW-7	1/22/2018 14:12	159.8	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 14:12	5.06	pH	pH
BY-GSA-MW-7	1/22/2018 14:12	20.89	C	Temperature
BY-GSA-MW-7	1/22/2018 14:12	1.42	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-8	1/24/2018 10:21	41.9	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:21	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:21	1.21	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:21	139.5	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:21	5.03	pH	pH
BY-GSA-MW-8	1/24/2018 10:21	19.64	C	Temperature
BY-GSA-MW-8	1/24/2018 10:21	22.2	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:26	41.6	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:26	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:26	1.1	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:26	135.8	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:26	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:26	19.76	C	Temperature
BY-GSA-MW-8	1/24/2018 10:26	13.5	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:31	41.6	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:31	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:31	1.1	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:31	133.5	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:31	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:31	19.72	C	Temperature
BY-GSA-MW-8	1/24/2018 10:31	7.8	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:36	41.5	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:36	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:36	1.03	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:36	132.5	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:36	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:36	19.72	C	Temperature
BY-GSA-MW-8	1/24/2018 10:36	5.87	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:41	41.6	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:41	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:41	1.06	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:41	132.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:41	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:41	19.86	C	Temperature
BY-GSA-MW-8	1/24/2018 10:41	4.87	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-9	1/23/2018 13:21	60.4	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:21	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:21	1.57	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:21	181.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:21	4.52	pH	pH
BY-GSA-MW-9	1/23/2018 13:21	21.56	C	Temperature
BY-GSA-MW-9	1/23/2018 13:21	0.41	NTU	Turbidity
BY-GSA-MW-9	1/23/2018 13:26	60.4	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:26	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:26	1.45	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:26	176.9	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:26	4.53	pH	pH
BY-GSA-MW-9	1/23/2018 13:26	21.45	C	Temperature
BY-GSA-MW-9	1/23/2018 13:26	0.1	NTU	Turbidity
BY-GSA-MW-9	1/23/2018 13:31	60.3	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:31	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:31	1.42	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:31	172.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:31	4.53	pH	pH
BY-GSA-MW-9	1/23/2018 13:31	21.36	C	Temperature
BY-GSA-MW-9	1/23/2018 13:31	0.37	NTU	Turbidity
BY-GSA-MW-9	1/23/2018 13:36	59.7	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:36	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:36	1.4	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:36	170.2	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:36	4.53	pH	pH
BY-GSA-MW-9	1/23/2018 13:36	21.35	C	Temperature
BY-GSA-MW-9	1/23/2018 13:36	0.12	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-10	1/23/2018 14:12	61.7	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:12	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:12	5.34	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:12	170.5	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:12	4.61	pH	pH
BY-GSA-MW-10	1/23/2018 14:12	20.84	C	Temperature
BY-GSA-MW-10	1/23/2018 14:12	0.11	NTU	Turbidity
BY-GSA-MW-10	1/23/2018 14:17	60.9	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:17	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:17	5.21	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:17	173.2	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:17	4.61	pH	pH
BY-GSA-MW-10	1/23/2018 14:17	20.89	C	Temperature
BY-GSA-MW-10	1/23/2018 14:17	3.96	NTU	Turbidity
BY-GSA-MW-10	1/23/2018 14:22	59.6	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:22	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:22	5.12	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:22	177.9	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:22	4.6	pH	pH
BY-GSA-MW-10	1/23/2018 14:22	21.06	C	Temperature
BY-GSA-MW-10	1/23/2018 14:22	1.73	NTU	Turbidity
BY-GSA-MW-10	1/23/2018 14:27	59.3	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:27	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:27	5.12	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:27	182	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:27	4.6	pH	pH
BY-GSA-MW-10	1/23/2018 14:27	21.14	C	Temperature
BY-GSA-MW-10	1/23/2018 14:27	0.55	NTU	Turbidity

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

Field Case Narrative



Plant Barry Gypsum Storage

2018 Compliance Event 1

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
 - Field Blank 1 (FB-1) had results greater than the reporting limit (RL) for Total Calcium.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

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



Sample Group : WMWBARG_1149

Project/Site : Barry Gypsum
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

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: Sarah
Copeland

Digitally signed by Sarah Copeland
DN: cn=Sarah Copeland, o=ou,
email=sgcopela@southernco.com,
c=US
Date: 2018.06.05 10:11:33 -05'00'

Supervision: T. Durant
Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2018.06.06 14:39:57 -05'00'



Metals ICP

Barry Gypsum

WMWBARG_1149

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>
AY10666	20180508CCR4	WMWBARG_1149
AY10667	20180508CCR4	WMWBARG_1149
AY10668	20180508CCR4	WMWBARG_1149
AY10669	20180508CCR4	WMWBARG_1149
AY10670	20180508CCR4	WMWBARG_1149
AY10671	20180508CCR4	WMWBARG_1149
AY10672	20180508CCR4	WMWBARG_1149
AY10673	20180508CCR4	WMWBARG_1149
AY10674	20180508CCR4	WMWBARG_1149
AY10675	20180508CCR4	WMWBARG_1149
AY10676	20180508CCR5	WMWBARG_1149
AY10677	20180508CCR5	WMWBARG_1149
AY10678	20180508CCR5	WMWBARG_1149

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 passed.
- 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.
7. All samples were analyzed at a x2.03 dilution to compensate for any matrix effects.
 8. The raw data results include results corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_1149

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>
AY10666	619346	WMWBARG_1149
AY10667	619346	WMWBARG_1149
AY10668	619346	WMWBARG_1149
AY10669	619346	WMWBARG_1149
AY10670	619346	WMWBARG_1149
AY10671	619346	WMWBARG_1149
AY10672	619346	WMWBARG_1149
AY10673	619346	WMWBARG_1149
AY10674	619346	WMWBARG_1149
AY10675	619346	WMWBARG_1149
AY10676	619347	WMWBARG_1149
AY10677	619347	WMWBARG_1149
AY10678	619347	WMWBARG_1149

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

Barry Gypsum

WMWBARG_1149

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>
AY10666	619801	WMWBARG_1149
AY10667	619801	WMWBARG_1149
AY10668	619801	WMWBARG_1149
AY10669	619801	WMWBARG_1149
AY10670	619801	WMWBARG_1149
AY10671	619801	WMWBARG_1149
AY10672	619801	WMWBARG_1149
AY10673	619801	WMWBARG_1149
AY10674	619801	WMWBARG_1149
AY10675	619801	WMWBARG_1149
AY10676	619802	WMWBARG_1149
AY10677	619802	WMWBARG_1149
AY10678	619802	WMWBARG_1149

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

Barry Gypsum

WMWBARG_1149

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>
AY10666	619205	WMWBARG_1149
AY10667	619205	WMWBARG_1149
AY10668	619205	WMWBARG_1149
AY10669	619205	WMWBARG_1149
AY10670	619205	WMWBARG_1149
AY10671	619205	WMWBARG_1149
AY10672	619205	WMWBARG_1149
AY10673	619204	WMWBARG_1149
AY10674	619205	WMWBARG_1149
AY10675	619353	WMWBARG_1149
AY10676	619353	WMWBARG_1149
AY10677	619353	WMWBARG_1149
AY10678	619353	WMWBARG_1149

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.
- All final weights of samples, standards, and blanks agreed within 0.5mg 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 2.5mg and 200mg residue with the exception of AY10674 and AY10678, which were below the 2.5mg residue requirement. Maximum volume of 150mL filtered.

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: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY10666

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.139	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0302	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.25	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	39.3	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY10666

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY10666

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10629	Solids, Dissolved	mg/L	-5.00		25			273	49.0		40 to 60			0.183	5	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
Sample Date: 01-May-18
Customer ID:
Delivery Date: 03-May-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY10667

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.132	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0338	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.05	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	J 0.00216	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	32.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY10667

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY10667

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10629	Solids, Dissolved	mg/L	-5.00		25			273	49.0		40 to 60			0.183	5	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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 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: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-10 Dup

Laboratory ID Number: AY10668

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.133	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0357	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.09	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	J 0.00212	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	34.7	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-10 Dup

Laboratory ID Number: AY10668

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20

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Laboratory certification ID: E571114

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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-10 Dup

Laboratory ID Number: AY10668

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY10629	Solids, Dissolved	mg/L	-5.00	25			273	49.0	40 to 60		0.183	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY10669

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.0400	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	0.695	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	30.7	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY10669

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY10669

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10629	Solids, Dissolved	mg/L	-5.00	25			273	49.0	40 to 60		0.183	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY10670

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.0810	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0365	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	4.66	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	J 0.00367	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	44.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY10670

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY10670

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10629	Solids, Dissolved	mg/L	-5.00		25			273	49.0		40 to 60			0.183		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY10671

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.102	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.47	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	34.7	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY10671

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20

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Laboratory certification ID: E571114

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY10671

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10629	Solids, Dissolved	mg/L	-5.00		25			273	49.0		40 to 60			0.183		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY10672

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.0877	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.76	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	35.3	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY10672

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 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:

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY10672

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10629	Solids, Dissolved	mg/L	-5.00		25			273	49.0		40 to 60			0.183		5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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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: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY10673

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.167	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.58	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	42.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY10673

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY10673

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10631	Solids, Dissolved	mg/L	-5.00		25			197	49.0		40 to 60			0.00		5

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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: WMWBARGFB
Sample Date: 01-May-18
Customer ID:
Delivery Date: 03-May-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY10674

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.55	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	U Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARGFB
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY10674

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	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.

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 01-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY10674

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10629	Solids, Dissolved	mg/L	-5.00		25			273	49.0		40 to 60			0.183		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY10675

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.137	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0362	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.64	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	J 0.00702	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	34.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY10675

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10675	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.107	0.109	0.109	0.085 to 0.115	107	70 to 130	1.77	20
AY10675	Boron, Total	mg/L	-0.000804	0.044	1.00	1.01	1.00	0.948	0.85 to 1.15	97.8	70 to 130	1.10	20
AY10675	Calcium, Total	mg/L	0.000457	0.22	5.00	6.71	6.59	4.97	4.25 to 5.75	101	70 to 130	1.75	20
AY10675	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.104	0.107	0.103	0.085 to 0.115	96.7	70 to 130	2.83	20
AY10675	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0942	0.0944	0.0904	0.085 to 0.115	94.2	70 to 130	0.297	20
AY10675	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0671	20
AY10675	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.239	0.248	0.104	0.085 to 0.115	102	70 to 130	3.63	20
AY10675	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0988	0.100	0.0982	0.085 to 0.115	98.8	70 to 130	1.46	20
AY10675	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0977	0.0989	0.0957	0.085 to 0.115	97.7	70 to 130	1.22	20
AY10675	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.122	20
AY10675	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.103	0.106	0.105	0.085 to 0.115	103	70 to 130	2.47	20
AY10675	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0971	0.0998	0.0969	0.085 to 0.115	97.1	70 to 130	2.76	20
AY10675	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	2.10	20
AY10675	Lithium, Total	mg/L	0.0000195	0.022	0.20	0.201	0.199	0.192	0.17 to 0.23	101	70 to 130	1.10	20
AY10675	Mercury, Total by CVAA	mg/L	0.0000370	0.0005	0.004	0.00390	0.00386	0.00389	0.0034 to 0.0046	97.6	70 to 130	1.07	20

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY10675

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10786	Solids, Dissolved	mg/L	4.00	25			564	51.0	40 to 60		1.08	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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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: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY10676

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.0850	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0334	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.44	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	30.7	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY10676

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY10678	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0984	0.0983	0.0982	0.085 to 0.115	98.4	70 to 130	0.0513	20
AY10678	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0986	0.101	0.0969	0.085 to 0.115	98.6	70 to 130	2.02	20
AY10678	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.107	0.110	0.107	0.085 to 0.115	107	70 to 130	2.23	20
AY10678	Boron, Total	mg/L	-0.00101	0.044	1.00	0.959	0.946	0.958	0.85 to 1.15	95.9	70 to 130	1.34	20
AY10678	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.0982	0.0994	0.103	0.085 to 0.115	98.2	70 to 130	1.26	20
AY10678	Lithium, Total	mg/L	-0.0000244	0.022	0.20	0.197	0.194	0.192	0.17 to 0.23	98.3	70 to 130	1.40	20
AY10678	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.108	0.106	0.109	0.085 to 0.115	108	70 to 130	1.54	20
AY10678	Calcium, Total	mg/L	0.00277	0.22	5.00	5.00	4.94	4.98	4.25 to 5.75	100	70 to 130	1.34	20
AY10678	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.103	0.107	0.104	0.085 to 0.115	103	70 to 130	3.41	20
AY10678	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.105	0.107	0.103	0.085 to 0.115	105	70 to 130	1.67	20
AY10678	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.107	0.104	0.104	0.085 to 0.115	107	70 to 130	2.96	20
AY10678	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0936	0.0953	0.0904	0.085 to 0.115	93.6	70 to 130	1.85	20
AY10678	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.38	20
AY10678	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0972	0.0996	0.0957	0.085 to 0.115	97.2	70 to 130	2.48	20
AY10678	Mercury, Total by CVAA	mg/L	0.0000355	0.0005	0.004	0.00390	0.00385	0.00383	0.0034 to 0.0046	97.4	70 to 130	1.15	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY10676

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	
				Limit				Duplicate	LCS	Limit	Rec	Limit	Limit
AY10786	Solids, Dissolved	mg/L	4.00	25				564	51.0	40 to 60			1.08 5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY10677

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	0.0398	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	0.751	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	J 0.00202	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	30.7	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY10677

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY10678	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0984	0.0983	0.0982	0.085 to 0.115	98.4	70 to 130	0.0513	20
AY10678	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.107	0.110	0.107	0.085 to 0.115	107	70 to 130	2.23	20
AY10678	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0986	0.101	0.0969	0.085 to 0.115	98.6	70 to 130	2.02	20
AY10678	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0972	0.0996	0.0957	0.085 to 0.115	97.2	70 to 130	2.48	20
AY10678	Mercury, Total by CVAA	mg/L	0.0000355	0.0005	0.004	0.00390	0.00385	0.00383	0.0034 to 0.0046	97.4	70 to 130	1.15	20
AY10678	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0936	0.0953	0.0904	0.085 to 0.115	93.6	70 to 130	1.85	20
AY10678	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.38	20
AY10678	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.108	0.106	0.109	0.085 to 0.115	108	70 to 130	1.54	20
AY10678	Calcium, Total	mg/L	0.00277	0.22	5.00	5.00	4.94	4.98	4.25 to 5.75	100	70 to 130	1.34	20
AY10678	Boron, Total	mg/L	-0.00101	0.044	1.00	0.959	0.946	0.958	0.85 to 1.15	95.9	70 to 130	1.34	20
AY10678	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.0982	0.0994	0.103	0.085 to 0.115	98.2	70 to 130	1.26	20
AY10678	Lithium, Total	mg/L	-0.0000244	0.022	0.20	0.197	0.194	0.192	0.17 to 0.23	98.3	70 to 130	1.40	20
AY10678	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.103	0.107	0.104	0.085 to 0.115	103	70 to 130	3.41	20
AY10678	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.105	0.107	0.103	0.085 to 0.115	105	70 to 130	1.67	20
AY10678	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.107	0.104	0.104	0.085 to 0.115	107	70 to 130	2.96	20

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Comments:

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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY10677

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY10786	Solids, Dissolved	mg/L	4.00		25			564	51.0		40 to 60			1.08		5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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

Customer Account: WMWBARGE
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY10678

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/16/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/9/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	U Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Customer Account: WMWBARGE B
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY10678

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY10678	Antimony, Total	mg/L	0.0000459	0.00132	0.10	0.0986	0.101	0.0969	0.085 to 0.115	98.6	70 to 130	2.02	20	
AY10678	Beryllium, Total	mg/L	0.0000193	0.00132	0.10	0.0984	0.0983	0.0982	0.085 to 0.115	98.4	70 to 130	0.0513	20	
AY10678	Arsenic, Total	mg/L	0.0000137	0.0022	0.10	0.107	0.110	0.107	0.085 to 0.115	107	70 to 130	2.23	20	
AY10678	Molybdenum, Total	mg/L	0.0000169	0.0044	0.10	0.0936	0.0953	0.0904	0.085 to 0.115	93.6	70 to 130	1.85	20	
AY10678	Thallium, Total	mg/L	0.00000755	0.00044	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	1.38	20	
AY10678	Cadmium, Total	mg/L	0.0000140	0.00066	0.10	0.108	0.106	0.109	0.085 to 0.115	108	70 to 130	1.54	20	
AY10678	Calcium, Total	mg/L	0.00277	0.22	5.00	5.00	4.94	4.98	4.25 to 5.75	100	70 to 130	1.34	20	
AY10678	Chromium, Total	mg/L	0.0000152	0.0044	0.10	0.0972	0.0996	0.0957	0.085 to 0.115	97.2	70 to 130	2.48	20	
AY10678	Mercury, Total by CVAA	mg/L	0.0000355	0.0005	0.004	0.00390	0.00385	0.00383	0.0034 to 0.0046	97.4	70 to 130	1.15	20	
AY10678	Boron, Total	mg/L	-0.00101	0.044	1.00	0.959	0.946	0.958	0.85 to 1.15	95.9	70 to 130	1.34	20	
AY10678	Cobalt, Total	mg/L	0.00000539	0.0044	0.10	0.0982	0.0994	0.103	0.085 to 0.115	98.2	70 to 130	1.26	20	
AY10678	Lithium, Total	mg/L	-0.0000244	0.022	0.20	0.197	0.194	0.192	0.17 to 0.23	98.3	70 to 130	1.40	20	
AY10678	Barium, Total	mg/L	0.00000918	0.0044	0.10	0.103	0.107	0.104	0.085 to 0.115	103	70 to 130	3.41	20	
AY10678	Lead, Total	mg/L	0.00000804	0.0022	0.10	0.105	0.107	0.103	0.085 to 0.115	105	70 to 130	1.67	20	
AY10678	Selenium, Total	mg/L	0.0000325	0.0044	0.10	0.107	0.104	0.104	0.085 to 0.115	107	70 to 130	2.96	20	

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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:

Alabama Power General Test Laboratory
 744 County 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: WMWBARGEGB
 Sample Date: 02-May-18
 Customer ID:
 Delivery Date: 03-May-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY10678

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10786	Solids, Dissolved	mg/L	4.00	25			564	51.0	40 to 60		1.08	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:

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
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 Outside Lab
 Lab Complete

Lab ETA 05/03/2018 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Barry Gypsum
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250 mL): Hg, Bottle 3 (500mL): TDS		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	05/01/2018	09:50	3	Groundwater		AY10666
MW-10	05/01/2018	10:40	3	Groundwater		AY10667
MW-10 DUP	05/01/2018	10:40	3	Sample Duplicate		AY10668
MW-7	05/01/2018	11:50	3	Groundwater		AY10669
MW-6	05/01/2018	12:47	3	Groundwater		AY10670
MW-4	05/01/2018	13:45	3	Groundwater		AY10671
MW-3	05/01/2018	14:48	3	Groundwater		AY10672
MW-2	05/01/2018	15:51	3	Groundwater		AY10673
FB-1	05/01/2018	16:15	3	Field Blank		AY10674
MW-1	05/02/2018	09:48	3	Groundwater		AY10675
MW-5	05/02/2018	10:45	3	Groundwater		AY10676
MW-8	05/02/2018	11:48	3	Groundwater		AY10677
EB-1	05/02/2018	12:10	3	Equipment Blank		AY10678

Relinquished By	Received By	Date/Time
Benjamin Tyler Rothschadl <small>Digitally signed by Benjamin Tyler Rothschadl DN: cn=Benjamin Tyler Rothschadl, ou=Alabama Power Environmental Affairs c=Groundwater Team, ou=Alabama Power Company, email=x2btrnoth@southernco.com, c=US Date: 2018.05.03 12:56:51 -0500</small>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2018.05.03 13:12:45 -0500</small>	05/03/2018 13:12

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp
		0.2 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5881-30154-10-8



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete Outside Lab
 Lab Complete

Lab ETA 05/03/2018 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Barry Gypsum
Analysis Requested	Bottle 1 (1L): Radium, Bottle 2 (250mL): Anions		
Comments	Radium Duplicate collected at MW-4 All samples outsourced to Test America.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	05/01/2018	09:50	2	Groundwater		AY10679
MW-10	05/01/2018	10:40	2	Groundwater		AY10680
MW-10 DUP	05/01/2018	10:40	2	Sample Duplicate		AY10681
MW-7	05/01/2018	11:50	2	Groundwater		AY10682
MW-6	05/01/2018	12:47	2	Groundwater		AY10683
MW-4	05/01/2018	13:45	4	Groundwater		AY10684
MW-3	05/01/2018	14:48	2	Groundwater		AY10685
MW-2	05/01/2018	15:51	2	Groundwater		AY10686
FB-1	05/01/2018	16:15	2	Field Blank		AY10687
MW-1	05/02/2018	09:48	2	Groundwater		AY10688
MW-5	05/02/2018	10:45	2	Groundwater		AY10689
MW-8	05/02/2018	11:48	2	Groundwater		AY10690
EB-1	05/02/2018	12:10	2	Equipment Blank		AY10691

Relinquished By	Received By	Date/Time
Benjamin Tyler Rothschadl <small>Digitally signed by Benjamin Tyler Rothschadl DN: cn=Benjamin Tyler Rothschadl, ou=Alabama Power Environmental Affairs + Groundwater Team, ou=Alabama Power Company, email=x2brtho@southernco.com, c=US Date: 2018.05.03 13:03:19 -0500</small>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2018.05.03 13:13:55 -0500</small>	05/03/2018 13:13

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	4677-23343-4-2	Cooler Temp	0.2 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	5881-30154-10-8

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: 400-153400-1

TestAmerica Sample Delivery Group: Barry Gypsum 1149

Client Project/Site: CCR Plant Barry

For:

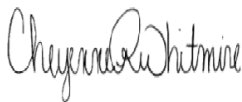
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

5/19/2018 12:14:55 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

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

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

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

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Detection Summary

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

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

Client Sample ID: AY10679 MW-9

Lab Sample ID: 400-153400-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.7		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	7.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10680 MW-10

Lab Sample ID: 400-153400-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		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	10		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10681 MW-10 DUP

Lab Sample ID: 400-153400-3

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	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	10		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10682 MW-7

Lab Sample ID: 400-153400-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10683 MW-6

Lab Sample ID: 400-153400-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10684 MW-4

Lab Sample ID: 400-153400-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.9		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10685 MW-3

Lab Sample ID: 400-153400-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.9		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10686 MW-2

Lab Sample ID: 400-153400-8

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	0.040	J	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: AY10687 FB-1

Lab Sample ID: 400-153400-9

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

Client Sample ID: AY10687 FB-1 (Continued)

Lab Sample ID: 400-153400-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.69	J	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AY10688 MW-1

Lab Sample ID: 400-153400-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.9		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10689 MW-5

Lab Sample ID: 400-153400-11

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
Sulfate	6.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10690 MW-8

Lab Sample ID: 400-153400-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY10691 EB-1

Lab Sample ID: 400-153400-13

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 Barry

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

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 Barry

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-153400-1	AY10679 MW-9	Water	05/01/18 09:50	05/07/18 15:00
400-153400-2	AY10680 MW-10	Water	05/01/18 10:40	05/07/18 15:00
400-153400-3	AY10681 MW-10 DUP	Water	05/01/18 10:40	05/07/18 15:00
400-153400-4	AY10682 MW-7	Water	05/01/18 11:50	05/07/18 15:00
400-153400-5	AY10683 MW-6	Water	05/01/18 12:47	05/07/18 15:00
400-153400-6	AY10684 MW-4	Water	05/01/18 13:45	05/07/18 15:00
400-153400-7	AY10685 MW-3	Water	05/01/18 14:48	05/07/18 15:00
400-153400-8	AY10686 MW-2	Water	05/01/18 15:51	05/07/18 15:00
400-153400-9	AY10687 FB-1	Water	05/01/18 16:15	05/07/18 15:00
400-153400-10	AY10688 MW-1	Water	05/02/18 09:48	05/07/18 15:00
400-153400-11	AY10689 MW-5	Water	05/02/18 10:45	05/07/18 15:00
400-153400-12	AY10690 MW-8	Water	05/02/18 11:48	05/07/18 15:00
400-153400-13	AY10691 EB-1	Water	05/02/18 12:10	05/07/18 15:00

Client Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Client Sample ID: AY10679 MW-9

Lab Sample ID: 400-153400-1

Date Collected: 05/01/18 09:50

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	0.070	J	0.10	0.032	mg/L			05/11/18 14:45	1
Sulfate	7.1		5.0	1.4	mg/L			05/16/18 07:50	1

Client Sample ID: AY10680 MW-10

Lab Sample ID: 400-153400-2

Date Collected: 05/01/18 10:40

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	0.090	J	0.10	0.032	mg/L			05/11/18 14:49	1
Sulfate	10		5.0	1.4	mg/L			05/16/18 07:51	1

Client Sample ID: AY10681 MW-10 DUP

Lab Sample ID: 400-153400-3

Date Collected: 05/01/18 10:40

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		2.0	0.60	mg/L			05/10/18 11:21	1
Fluoride	0.090	J	0.10	0.032	mg/L			05/11/18 14:53	1
Sulfate	10		5.0	1.4	mg/L			05/16/18 07:51	1

Client Sample ID: AY10682 MW-7

Lab Sample ID: 400-153400-4

Date Collected: 05/01/18 11:50

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		2.0	0.60	mg/L			05/10/18 11:13	1
Fluoride	<0.032		0.10	0.032	mg/L			05/11/18 14:55	1
Sulfate	1.6	J	5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample ID: AY10683 MW-6

Lab Sample ID: 400-153400-5

Date Collected: 05/01/18 12:47

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	<0.032		0.10	0.032	mg/L			05/11/18 14:58	1
Sulfate	8.5		5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Client Sample ID: AY10684 MW-4

Lab Sample ID: 400-153400-6

Date Collected: 05/01/18 13:45

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	<0.032		0.10	0.032	mg/L			05/11/18 15:02	1
Sulfate	5.9		5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample ID: AY10685 MW-3

Lab Sample ID: 400-153400-7

Date Collected: 05/01/18 14:48

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	<0.032		0.10	0.032	mg/L			05/11/18 15:05	1
Sulfate	6.9		5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample ID: AY10686 MW-2

Lab Sample ID: 400-153400-8

Date Collected: 05/01/18 15:51

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/11/18 15:15	1
Sulfate	4.2	J	5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample ID: AY10687 FB-1

Lab Sample ID: 400-153400-9

Date Collected: 05/01/18 16:15

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.69	J	2.0	0.60	mg/L			05/10/18 11:16	1
Fluoride	<0.032		0.10	0.032	mg/L			05/11/18 15:23	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample ID: AY10688 MW-1

Lab Sample ID: 400-153400-10

Date Collected: 05/02/18 09:48

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9		2.0	0.60	mg/L			05/16/18 12:05	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/10/18 14:23	1
Sulfate	5.9		5.0	1.4	mg/L			05/16/18 09:02	1

Client Sample ID: AY10689 MW-5

Lab Sample ID: 400-153400-11

Date Collected: 05/02/18 10:45

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			05/16/18 11:58	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Client Sample ID: AY10689 MW-5

Lab Sample ID: 400-153400-11

Date Collected: 05/02/18 10:45

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 16:25	1
Sulfate	6.0		5.0	1.4	mg/L			05/16/18 09:02	1

Client Sample ID: AY10690 MW-8

Lab Sample ID: 400-153400-12

Date Collected: 05/02/18 11:48

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 16:28	1
Sulfate	2.6	J	5.0	1.4	mg/L			05/16/18 07:57	1

Client Sample ID: AY10691 EB-1

Lab Sample ID: 400-153400-13

Date Collected: 05/02/18 12:10

Matrix: Water

Date Received: 05/07/18 15:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/16/18 11:58	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 16:31	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 09:06	1

Definitions/Glossary

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

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

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	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 Barry

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

Client Sample ID: AY10679 MW-9

Date Collected: 05/01/18 09:50

Date Received: 05/07/18 15:00

Lab Sample ID: 400-153400-1

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	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 14:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN

Client Sample ID: AY10680 MW-10

Date Collected: 05/01/18 10:40

Date Received: 05/07/18 15:00

Lab Sample ID: 400-153400-2

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	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 14:49	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:51	RRC	TAL PEN

Client Sample ID: AY10681 MW-10 DUP

Date Collected: 05/01/18 10:40

Date Received: 05/07/18 15:00

Lab Sample ID: 400-153400-3

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	397138	05/10/18 11:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 14:53	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:51	RRC	TAL PEN

Client Sample ID: AY10682 MW-7

Date Collected: 05/01/18 11:50

Date Received: 05/07/18 15:00

Lab Sample ID: 400-153400-4

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	397138	05/10/18 11:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 14:55	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

Client Sample ID: AY10683 MW-6

Date Collected: 05/01/18 12:47

Date Received: 05/07/18 15:00

Lab Sample ID: 400-153400-5

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	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 14:58	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

Client Sample ID: AY10684 MW-4

Lab Sample ID: 400-153400-6

Date Collected: 05/01/18 13:45

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 15:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

Client Sample ID: AY10685 MW-3

Lab Sample ID: 400-153400-7

Date Collected: 05/01/18 14:48

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 15:05	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

Client Sample ID: AY10686 MW-2

Lab Sample ID: 400-153400-8

Date Collected: 05/01/18 15:51

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 15:15	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

Client Sample ID: AY10687 FB-1

Lab Sample ID: 400-153400-9

Date Collected: 05/01/18 16:15

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397138	05/10/18 11:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397331	05/11/18 15:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

Client Sample ID: AY10688 MW-1

Lab Sample ID: 400-153400-10

Date Collected: 05/02/18 09:48

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 12:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

Client Sample ID: AY10689 MW-5

Lab Sample ID: 400-153400-11

Date Collected: 05/02/18 10:45

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 11:58	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

Client Sample ID: AY10690 MW-8

Lab Sample ID: 400-153400-12

Date Collected: 05/02/18 11:48

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:28	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

Client Sample ID: AY10691 EB-1

Lab Sample ID: 400-153400-13

Date Collected: 05/02/18 12:10

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 11:58	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:31	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:06	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 Barry

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

General Chemistry

Analysis Batch: 397138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-1	AY10679 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-153400-2	AY10680 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-153400-3	AY10681 MW-10 DUP	Total/NA	Water	SM 4500 Cl- E	
400-153400-4	AY10682 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-153400-5	AY10683 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-153400-6	AY10684 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-153400-7	AY10685 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-153400-8	AY10686 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-153400-9	AY10687 FB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-397138/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-397138/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-397138/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-153400-4 MS	AY10682 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-153400-4 MSD	AY10682 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-153400-8 MS	AY10686 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-153400-8 MSD	AY10686 MW-2	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 397179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-10	AY10688 MW-1	Total/NA	Water	SM 4500 F C	
MB 400-397179/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-397179/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-95149-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-153398-B-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 397200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-11	AY10689 MW-5	Total/NA	Water	SM 4500 F C	
400-153400-12	AY10690 MW-8	Total/NA	Water	SM 4500 F C	
400-153400-13	AY10691 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-397200/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-397200/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-153398-B-10 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-153398-B-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-153398-B-18 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 397331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-1	AY10679 MW-9	Total/NA	Water	SM 4500 F C	
400-153400-2	AY10680 MW-10	Total/NA	Water	SM 4500 F C	
400-153400-3	AY10681 MW-10 DUP	Total/NA	Water	SM 4500 F C	
400-153400-4	AY10682 MW-7	Total/NA	Water	SM 4500 F C	
400-153400-5	AY10683 MW-6	Total/NA	Water	SM 4500 F C	
400-153400-6	AY10684 MW-4	Total/NA	Water	SM 4500 F C	
400-153400-7	AY10685 MW-3	Total/NA	Water	SM 4500 F C	
400-153400-8	AY10686 MW-2	Total/NA	Water	SM 4500 F C	
400-153400-9	AY10687 FB-1	Total/NA	Water	SM 4500 F C	
MB 400-397331/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-397331/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-95278-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-95278-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

General Chemistry (Continued)

Analysis Batch: 397331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-8 DU	AY10686 MW-2	Total/NA	Water	SM 4500 F C	

Analysis Batch: 397607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-12	AY10690 MW-8	Total/NA	Water	SM 4500 CI- E	
MB 400-397607/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-397607/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-397607/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-153400-12 MS	AY10690 MW-8	Total/NA	Water	SM 4500 CI- E	
400-153400-12 MSD	AY10690 MW-8	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 397778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-1	AY10679 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-153400-2	AY10680 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-153400-3	AY10681 MW-10 DUP	Total/NA	Water	SM 4500 SO4 E	
400-153400-4	AY10682 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-153400-5	AY10683 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-153400-6	AY10684 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-153400-7	AY10685 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-153400-8	AY10686 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-153400-9	AY10687 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-153400-12	AY10690 MW-8	Total/NA	Water	SM 4500 SO4 E	
MB 400-397778/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-397778/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-397778/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153400-4 MS	AY10682 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-153400-4 MSD	AY10682 MW-7	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 397780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-10	AY10688 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-153400-11	AY10689 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-153400-13	AY10691 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-397780/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-397780/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-397780/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153398-B-17 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-153398-B-17 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-153398-B-20 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-153398-B-20 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 397833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-10	AY10688 MW-1	Total/NA	Water	SM 4500 CI- E	
400-153400-11	AY10689 MW-5	Total/NA	Water	SM 4500 CI- E	
400-153400-13	AY10691 EB-1	Total/NA	Water	SM 4500 CI- E	
MB 400-397833/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-397833/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-397833/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-153400-10 MS	AY10688 MW-1	Total/NA	Water	SM 4500 CI- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-153400-1
SDG: Barry Gypsum 1149

General Chemistry (Continued)

Analysis Batch: 397833 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-10 MSD	AY10688 MW-1	Total/NA	Water	SM 4500 Cl- E	

1

2

3

4

5

6

7

8

9

10

11

12

13

QC Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-397138/6
Matrix: Water
Analysis Batch: 397138

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			05/10/18 11:13	1

Lab Sample ID: LCS 400-397138/7
Matrix: Water
Analysis Batch: 397138

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.0		mg/L		103	90 - 110

Lab Sample ID: MRL 400-397138/3
Matrix: Water
Analysis Batch: 397138

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.90	J	mg/L		95	50 - 150

Lab Sample ID: 400-153400-4 MS
Matrix: Water
Analysis Batch: 397138

Client Sample ID: AY10682 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0		10.0	14.8		mg/L		108	73 - 120

Lab Sample ID: 400-153400-4 MSD
Matrix: Water
Analysis Batch: 397138

Client Sample ID: AY10682 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.0		10.0	14.8		mg/L		109	73 - 120	1	8

Lab Sample ID: 400-153400-8 MS
Matrix: Water
Analysis Batch: 397138

Client Sample ID: AY10686 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.7		10.0	14.3		mg/L		106	73 - 120

Lab Sample ID: 400-153400-8 MSD
Matrix: Water
Analysis Batch: 397138

Client Sample ID: AY10686 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	3.7		10.0	14.4		mg/L		107	73 - 120	0	8

Lab Sample ID: MB 400-397607/6
Matrix: Water
Analysis Batch: 397607

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			05/15/18 08:03	1

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Lab Sample ID: LCS 400-397607/7
Matrix: Water
Analysis Batch: 397607

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 400-397607/3
Matrix: Water
Analysis Batch: 397607

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	1.58	J	mg/L		79	50 - 150

Lab Sample ID: 400-153400-12 MS
Matrix: Water
Analysis Batch: 397607

Client Sample ID: AY10690 MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.1		10.0	14.8		mg/L		106	73 - 120

Lab Sample ID: 400-153400-12 MSD
Matrix: Water
Analysis Batch: 397607

Client Sample ID: AY10690 MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	4.1		10.0	14.7		mg/L		106	73 - 120	0	8

Lab Sample ID: MB 400-397833/6
Matrix: Water
Analysis Batch: 397833

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			05/16/18 11:55	1

Lab Sample ID: LCS 400-397833/7
Matrix: Water
Analysis Batch: 397833

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	31.7		mg/L		106	90 - 110

Lab Sample ID: MRL 400-397833/3
Matrix: Water
Analysis Batch: 397833

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	1.76	J	mg/L		88	50 - 150

Lab Sample ID: 400-153400-10 MS
Matrix: Water
Analysis Batch: 397833

Client Sample ID: AY10688 MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.9		10.0	20.2		mg/L		103	73 - 120

QC Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

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

Lab Sample ID: 400-153400-10 MSD
Matrix: Water
Analysis Batch: 397833

Client Sample ID: AY10688 MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.9		10.0	20.2		mg/L		103	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-397179/3
Matrix: Water
Analysis Batch: 397179

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			05/10/18 13:50	1

Lab Sample ID: LCS 400-397179/4
Matrix: Water
Analysis Batch: 397179

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	3.84		mg/L		96	90 - 110

Lab Sample ID: 240-95149-A-3 MSD
Matrix: Water
Analysis Batch: 397179

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.27		1.00	1.24		mg/L		97	75 - 125	0	4

Lab Sample ID: 400-153398-B-1 DU
Matrix: Water
Analysis Batch: 397179

Client Sample ID: Duplicate
Prep Type: Total/NA

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

Lab Sample ID: MB 400-397200/3
Matrix: Water
Analysis Batch: 397200

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			05/10/18 15:29	1

Lab Sample ID: LCS 400-397200/4
Matrix: Water
Analysis Batch: 397200

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	3.76		mg/L		94	90 - 110

QC Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-153398-B-10 MS
Matrix: Water
Analysis Batch: 397200

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.060	J	1.00	1.06		mg/L		100	75 - 125

Lab Sample ID: 400-153398-B-10 MSD
Matrix: Water
Analysis Batch: 397200

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.060	J	1.00	1.06		mg/L		100	75 - 125	0	4

Lab Sample ID: 400-153398-B-18 DU
Matrix: Water
Analysis Batch: 397200

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.050	J	0.0500	J	mg/L		0	4

Lab Sample ID: MB 400-397331/3
Matrix: Water
Analysis Batch: 397331

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			05/11/18 14:25	1

Lab Sample ID: LCS 400-397331/4
Matrix: Water
Analysis Batch: 397331

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	3.84		mg/L		96	90 - 110

Lab Sample ID: 240-95278-B-1 MS
Matrix: Water
Analysis Batch: 397331

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.17		1.00	1.19		mg/L		102	75 - 125

Lab Sample ID: 240-95278-B-1 MSD
Matrix: Water
Analysis Batch: 397331

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.17		1.00	1.19		mg/L		102	75 - 125	0	4

Lab Sample ID: 400-153400-8 DU
Matrix: Water
Analysis Batch: 397331

Client Sample ID: AY10686 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.040	J	0.0400	J	mg/L		0	4

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-397778/6
Matrix: Water
Analysis Batch: 397778

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			05/16/18 07:44	1

Lab Sample ID: LCS 400-397778/7
Matrix: Water
Analysis Batch: 397778

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	15.0		mg/L		100	90 - 110

Lab Sample ID: MRL 400-397778/3
Matrix: Water
Analysis Batch: 397778

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.57	J	mg/L		71	50 - 150

Lab Sample ID: 400-153400-4 MS
Matrix: Water
Analysis Batch: 397778

Client Sample ID: AY10682 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.6	J	10.0	13.1		mg/L		114	77 - 128

Lab Sample ID: 400-153400-4 MSD
Matrix: Water
Analysis Batch: 397778

Client Sample ID: AY10682 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.6	J	10.0	12.9		mg/L		113	77 - 128	1	5

Lab Sample ID: MB 400-397780/6
Matrix: Water
Analysis Batch: 397780

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			05/16/18 08:55	1

Lab Sample ID: LCS 400-397780/7
Matrix: Water
Analysis Batch: 397780

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.7		mg/L		98	90 - 110

QC Sample Results

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

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

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

Lab Sample ID: MRL 400-397780/3
Matrix: Water
Analysis Batch: 397780

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	4.36	J	mg/L		87	50 - 150

Lab Sample ID: 400-153398-B-17 MS
Matrix: Water
Analysis Batch: 397780

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		10.0	10.4		mg/L		104	77 - 128

Lab Sample ID: 400-153398-B-17 MSD
Matrix: Water
Analysis Batch: 397780

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		10.0	10.6		mg/L		106	77 - 128	2	5

Lab Sample ID: 400-153398-B-20 MS
Matrix: Water
Analysis Batch: 397780

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		10.0	9.69		mg/L		97	77 - 128

Lab Sample ID: 400-153398-B-20 MSD
Matrix: Water
Analysis Batch: 397780

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		10.0	9.64		mg/L		96	77 - 128	1	5

Chain of Custody Record

Client Information
 Client Contact: Ben Routhschadl
 Phone: [Blank]
 Lab PM: Whitney, Cheyenne R
 E-Mail: cheyenne.whitire@testamericainc.com

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
 SOW#: Barry Gypsum 1149

Due Date Requested: [Blank]
TAT Requested (days): Routine
FO #: [Blank]
WO #: [Blank]
Project #: 40007143
SSOW#: [Blank]

Carrier Tracking No(s): 400-56525-24537.1
Page: Page 1 of 1
Job #: [Blank]

Analysis Requested

9315, Ra226, 9320, Ra228, Ra226Ra228, GPPC

400-153400 COC

SM 4500 F, SM 4500 Cl E, SM 4500 SO4 E

Perform MS/MSD (Yes or No) [X] N

Field Filtered Sample (Yes or No) [X] X

Total Number of Containers [X] 2

Special Instructions/Note: [Blank]

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Tissue, Air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F	SM 4500 Cl E	SM 4500 SO4 E	Total Number of Containers	Special Instructions/Note
AY10679	5/1/18	0950	G	Water		X		X	X	X	2	MW-9
AY10680	5/1/18	1040	G	Water		X		X	X	X	2	MW-10
AY10681	5/1/18	1040	G	Water		X		X	X	X	2	MW-10 Dup (Sample Duplicate)
AY10682	5/1/18	1150	G	Water		X		X	X	X	2	MW-7
AY10683	5/1/18	1247	G	Water		X		X	X	X	2	MW-6
AY10684	5/1/18	1345	G	Water		Y		X	X	X	4	MW-4
AY10685	5/1/18	1448	G	Water		X		X	X	X	2	MW-3
AY10686	5/1/18	1551	G	Water		X		X	X	X	2	MW-2
AY10687	5/1/18	1615	G	Water		X		X	X	X	2	FB-1 (Field Blank)
AY10688	5/2/18	0948	G	Water		X		X	X	X	2	MW-1
AY10689	5/2/18	1045	G	Water		X		X	X	X	2	MW-5
AY10690	5/2/18	1148	G	Water		X		X	X	X	2	MW-8
AY10691	5/2/18	1210	G	Water		X		X	X	X	2	EB-1 (Equipment Blank)

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Empty Kit Relinquished by: [Blank] Date: [Blank]

Relinquished by: Sarah Copeland Date/Time: 5/8/2018, 0845 Company: APC

Relinquished by: [Blank] Date/Time: [Blank] Company: [Blank]

Relinquished by: [Blank] Date/Time: [Blank] Company: [Blank]

Custody Seals Intact: Yes No

Custody Seal No.: [Blank]

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

Special Instructions/OC Requirements: [Blank]

Method of Shipment: [Blank]

Received by: [Signature] Date/Time: 5/18/18 1500 Company: [Blank]

Received by: [Signature] Date/Time: 5/18/18 0910 Company: [Blank]

Received by: [Signature] Date/Time: [Blank] Company: [Blank]

Cooler Temperature(s) °C and Other Remarks: 4.9°C JK 1



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153400-1
SDG Number: Barry Gypsum 1149

Login Number: 153400

List Number: 1

Creator: Perez, Trina M

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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9°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 <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 Barry

TestAmerica Job ID: 400-153400-1
 SDG: Barry Gypsum 1149

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
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
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	05-15-19
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: 400-153400-2

TestAmerica Sample Delivery Group: Barry Gypsum 1149

Client Project/Site: CCR Plant Barry

For:

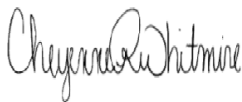
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/11/2018 6:17:52 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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

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

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Method Summary

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

TestAmerica Job ID: 400-153400-2
SDG: Barry Gypsum 1149

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

Protocol References:

None = None

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

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

Laboratory References:

TAL SL = 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 Barry

TestAmerica Job ID: 400-153400-2
SDG: Barry Gypsum 1149

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-153400-1	AY10679 MW-9	Water	05/01/18 09:50	05/07/18 15:00
400-153400-2	AY10680 MW-10	Water	05/01/18 10:40	05/07/18 15:00
400-153400-3	AY10681 MW-10 DUP	Water	05/01/18 10:40	05/07/18 15:00
400-153400-4	AY10682 MW-7	Water	05/01/18 11:50	05/07/18 15:00
400-153400-5	AY10683 MW-6	Water	05/01/18 12:47	05/07/18 15:00
400-153400-6	AY10684 MW-4	Water	05/01/18 13:45	05/07/18 15:00
400-153400-7	AY10685 MW-3	Water	05/01/18 14:48	05/07/18 15:00
400-153400-8	AY10686 MW-2	Water	05/01/18 15:51	05/07/18 15:00
400-153400-9	AY10687 FB-1	Water	05/01/18 16:15	05/07/18 15:00
400-153400-10	AY10688 MW-1	Water	05/02/18 09:48	05/07/18 15:00
400-153400-11	AY10689 MW-5	Water	05/02/18 10:45	05/07/18 15:00
400-153400-12	AY10690 MW-8	Water	05/02/18 11:48	05/07/18 15:00
400-153400-13	AY10691 EB-1	Water	05/02/18 12:10	05/07/18 15:00

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10679 MW-9

Lab Sample ID: 400-153400-1

Date Collected: 05/01/18 09:50

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.573		0.122	0.132	1.00	0.0772	pCi/L	05/14/18 11:30	06/07/18 08:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 11:30	06/07/18 08:14	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388		0.200	0.203	1.00	0.292	pCi/L	05/14/18 14:17	05/24/18 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 14:17	05/24/18 09:14	1
Y Carrier	87.9		40 - 110					05/14/18 14:17	05/24/18 09:14	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.961		0.234	0.242	5.00	0.292	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10680 MW-10

Lab Sample ID: 400-153400-2

Date Collected: 05/01/18 10:40

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.635		0.123	0.136	1.00	0.0560	pCi/L	05/14/18 11:30	06/07/18 09:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 11:30	06/07/18 09:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.391		0.210	0.213	1.00	0.311	pCi/L	05/14/18 14:17	05/24/18 09:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 14:17	05/24/18 09:14	1
Y Carrier	87.1		40 - 110					05/14/18 14:17	05/24/18 09:14	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.03		0.243	0.253	5.00	0.311	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10681 MW-10 DUP

Lab Sample ID: 400-153400-3

Date Collected: 05/01/18 10:40

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.653		0.131	0.143	1.00	0.0791	pCi/L	05/14/18 11:30	06/07/18 09:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					05/14/18 11:30	06/07/18 09:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.634		0.234	0.241	1.00	0.316	pCi/L	05/14/18 14:17	05/24/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					05/14/18 14:17	05/24/18 09:18	1
Y Carrier	87.1		40 - 110					05/14/18 14:17	05/24/18 09:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.29		0.268	0.280	5.00	0.316	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10682 MW-7

Lab Sample ID: 400-153400-4

Date Collected: 05/01/18 11:50

Matrix: Water

Date Received: 05/07/18 15:00

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		0.0813	0.0838	1.00	0.0789	pCi/L	05/14/18 11:30	06/07/18 09:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 11:30	06/07/18 09:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.406		0.223	0.226	1.00	0.335	pCi/L	05/14/18 14:17	05/24/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 14:17	05/24/18 09:18	1
Y Carrier	87.5		40 - 110					05/14/18 14:17	05/24/18 09:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.630		0.237	0.241	5.00	0.335	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10683 MW-6

Lab Sample ID: 400-153400-5

Date Collected: 05/01/18 12:47

Matrix: Water

Date Received: 05/07/18 15:00

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		0.0923	0.0961	1.00	0.0771	pCi/L	05/14/18 11:30	06/07/18 10:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					05/14/18 11:30	06/07/18 10:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.633		0.226	0.233	1.00	0.295	pCi/L	05/14/18 14:17	05/24/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					05/14/18 14:17	05/24/18 09:18	1
Y Carrier	83.0		40 - 110					05/14/18 14:17	05/24/18 09:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.931		0.244	0.252	5.00	0.295	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10684 MW-4

Lab Sample ID: 400-153400-6

Date Collected: 05/01/18 13:45

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.367		0.106	0.111	1.00	0.0923	pCi/L	05/14/18 11:30	06/07/18 10:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/14/18 11:30	06/07/18 10:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.823		0.251	0.262	1.00	0.319	pCi/L	05/14/18 14:17	05/24/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/14/18 14:17	05/24/18 09:18	1
Y Carrier	86.4		40 - 110					05/14/18 14:17	05/24/18 09:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.19		0.272	0.285	5.00	0.319	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10685 MW-3

Lab Sample ID: 400-153400-7

Date Collected: 05/01/18 14:48

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213		0.0758	0.0781	1.00	0.0621	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/14/18 11:30	06/09/18 13:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0835	U	0.190	0.190	1.00	0.327	pCi/L	05/14/18 14:17	05/24/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/14/18 14:17	05/24/18 09:18	1
Y Carrier	89.0		40 - 110					05/14/18 14:17	05/24/18 09:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.296	U	0.205	0.205	5.00	0.327	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10686 MW-2

Lab Sample ID: 400-153400-8

Date Collected: 05/01/18 15:51

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.487		0.115	0.123	1.00	0.0821	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 11:30	06/09/18 13:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.577		0.244	0.249	1.00	0.349	pCi/L	05/14/18 14:17	05/24/18 09:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					05/14/18 14:17	05/24/18 09:19	1
Y Carrier	86.7		40 - 110					05/14/18 14:17	05/24/18 09:19	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	1.06		0.270	0.278	5.00	0.349	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10687 FB-1

Lab Sample ID: 400-153400-9

Date Collected: 05/01/18 16:15

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0118	U	0.0447	0.0448	1.00	0.0866	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/14/18 11:30	06/09/18 13:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.540		0.226	0.231	1.00	0.317	pCi/L	05/14/18 14:17	05/24/18 09:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/14/18 14:17	05/24/18 09:19	1
Y Carrier	92.3		40 - 110					05/14/18 14:17	05/24/18 09:19	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	0.551		0.230	0.235	5.00	0.317	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10688 MW-1

Lab Sample ID: 400-153400-10

Date Collected: 05/02/18 09:48

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.436		0.116	0.123	1.00	0.0893	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/14/18 11:30	06/09/18 13:30	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		0.269	0.273	1.00	0.406	pCi/L	05/14/18 14:17	05/24/18 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/14/18 14:17	05/24/18 09:22	1
Y Carrier	87.5		40 - 110					05/14/18 14:17	05/24/18 09:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.916		0.293	0.299	5.00	0.406	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10689 MW-5

Lab Sample ID: 400-153400-11

Date Collected: 05/02/18 10:45

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.205		0.0782	0.0803	1.00	0.0775	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					05/14/18 11:30	06/09/18 13:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.196	U	0.210	0.211	1.00	0.344	pCi/L	05/14/18 14:17	05/24/18 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					05/14/18 14:17	05/24/18 09:22	1
Y Carrier	86.4		40 - 110					05/14/18 14:17	05/24/18 09:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.401		0.224	0.226	5.00	0.344	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10690 MW-8

Lab Sample ID: 400-153400-12

Date Collected: 05/02/18 11:48

Matrix: Water

Date Received: 05/07/18 15:00

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		0.0888	0.0926	1.00	0.0722	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					05/14/18 11:30	06/09/18 13:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424		0.237	0.240	1.00	0.357	pCi/L	05/14/18 14:17	05/24/18 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					05/14/18 14:17	05/24/18 09:22	1
Y Carrier	86.4		40 - 110					05/14/18 14:17	05/24/18 09:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.718		0.253	0.257	5.00	0.357	pCi/L		06/11/18 10:49	1

Client Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10691 EB-1

Lab Sample ID: 400-153400-13

Date Collected: 05/02/18 12:10

Matrix: Water

Date Received: 05/07/18 15:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0685	U	0.0613	0.0616	1.00	0.0914	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					05/14/18 11:30	06/09/18 13:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00738	U	0.185	0.185	1.00	0.334	pCi/L	05/14/18 14:17	05/24/18 09:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					05/14/18 14:17	05/24/18 09:22	1
Y Carrier	90.8		40 - 110					05/14/18 14:17	05/24/18 09:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0611	U	0.195	0.195	5.00	0.334	pCi/L		06/11/18 10:49	1

Definitions/Glossary

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

TestAmerica Job ID: 400-153400-2
SDG: Barry Gypsum 1149

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 Barry

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10679 MW-9

Lab Sample ID: 400-153400-1

Date Collected: 05/01/18 09:50

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369747	06/07/18 08:14	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367215	05/24/18 09:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10680 MW-10

Lab Sample ID: 400-153400-2

Date Collected: 05/01/18 10:40

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369747	06/07/18 09:58	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367215	05/24/18 09:14	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10681 MW-10 DUP

Lab Sample ID: 400-153400-3

Date Collected: 05/01/18 10:40

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369747	06/07/18 09:59	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:18	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10682 MW-7

Lab Sample ID: 400-153400-4

Date Collected: 05/01/18 11:50

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369747	06/07/18 09:59	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:18	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10683 MW-6

Lab Sample ID: 400-153400-5

Date Collected: 05/01/18 12:47

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369750	06/07/18 10:00	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:18	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10684 MW-4

Lab Sample ID: 400-153400-6

Date Collected: 05/01/18 13:45

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369750	06/07/18 10:00	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:18	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10685 MW-3

Lab Sample ID: 400-153400-7

Date Collected: 05/01/18 14:48

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:18	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10686 MW-2

Lab Sample ID: 400-153400-8

Date Collected: 05/01/18 15:51

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:19	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Client Sample ID: AY10687 FB-1

Lab Sample ID: 400-153400-9

Date Collected: 05/01/18 16:15

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367318	05/24/18 09:19	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10688 MW-1

Lab Sample ID: 400-153400-10

Date Collected: 05/02/18 09:48

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367315	05/24/18 09:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10689 MW-5

Lab Sample ID: 400-153400-11

Date Collected: 05/02/18 10:45

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367315	05/24/18 09:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Client Sample ID: AY10690 MW-8

Lab Sample ID: 400-153400-12

Date Collected: 05/02/18 11:48

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367315	05/24/18 09:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-153400-2
SDG: Barry Gypsum 1149

Client Sample ID: AY10691 EB-1

Lab Sample ID: 400-153400-13

Date Collected: 05/02/18 12:10

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365573	05/14/18 11:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 13:30	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365678	05/14/18 14:17	CMM	TAL SL
Total/NA	Analysis	9320		1	367315	05/24/18 09:22	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	369797	06/11/18 10:49	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 Barry

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Rad

Prep Batch: 365573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-1	AY10679 MW-9	Total/NA	Water	PrecSep-21	
400-153400-2	AY10680 MW-10	Total/NA	Water	PrecSep-21	
400-153400-3	AY10681 MW-10 DUP	Total/NA	Water	PrecSep-21	
400-153400-4	AY10682 MW-7	Total/NA	Water	PrecSep-21	
400-153400-5	AY10683 MW-6	Total/NA	Water	PrecSep-21	
400-153400-6	AY10684 MW-4	Total/NA	Water	PrecSep-21	
400-153400-7	AY10685 MW-3	Total/NA	Water	PrecSep-21	
400-153400-8	AY10686 MW-2	Total/NA	Water	PrecSep-21	
400-153400-9	AY10687 FB-1	Total/NA	Water	PrecSep-21	
400-153400-10	AY10688 MW-1	Total/NA	Water	PrecSep-21	
400-153400-11	AY10689 MW-5	Total/NA	Water	PrecSep-21	
400-153400-12	AY10690 MW-8	Total/NA	Water	PrecSep-21	
400-153400-13	AY10691 EB-1	Total/NA	Water	PrecSep-21	
MB 160-365573/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-365573/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-153400-6 DU	AY10684 MW-4	Total/NA	Water	PrecSep-21	

Prep Batch: 365678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153400-1	AY10679 MW-9	Total/NA	Water	PrecSep_0	
400-153400-2	AY10680 MW-10	Total/NA	Water	PrecSep_0	
400-153400-3	AY10681 MW-10 DUP	Total/NA	Water	PrecSep_0	
400-153400-4	AY10682 MW-7	Total/NA	Water	PrecSep_0	
400-153400-5	AY10683 MW-6	Total/NA	Water	PrecSep_0	
400-153400-6	AY10684 MW-4	Total/NA	Water	PrecSep_0	
400-153400-7	AY10685 MW-3	Total/NA	Water	PrecSep_0	
400-153400-8	AY10686 MW-2	Total/NA	Water	PrecSep_0	
400-153400-9	AY10687 FB-1	Total/NA	Water	PrecSep_0	
400-153400-10	AY10688 MW-1	Total/NA	Water	PrecSep_0	
400-153400-11	AY10689 MW-5	Total/NA	Water	PrecSep_0	
400-153400-12	AY10690 MW-8	Total/NA	Water	PrecSep_0	
400-153400-13	AY10691 EB-1	Total/NA	Water	PrecSep_0	
MB 160-365678/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-365678/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-153400-6 DU	AY10684 MW-4	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-365573/23-A
Matrix: Water
Analysis Batch: 369710

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365573

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01930	U	0.0457	0.0458	1.00	0.0853	pCi/L	05/14/18 11:30	06/09/18 13:30	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	90.9		40 - 110		05/14/18 11:30	06/09/18 13:30	1			

Lab Sample ID: LCS 160-365573/1-A
Matrix: Water
Analysis Batch: 369747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 365573

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.8	10.20		1.04	1.00	0.0572	pCi/L	86	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Ba Carrier	106		40 - 110						

Lab Sample ID: 400-153400-6 DU
Matrix: Water
Analysis Batch: 369710

Client Sample ID: AY10684 MW-4
Prep Type: Total/NA
Prep Batch: 365573

Analyte	Sample Sample		DU DU		Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.367		0.2359		0.0858	1.00	0.0782	pCi/L	0.66	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	107		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-365678/23-A
Matrix: Water
Analysis Batch: 367214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 365678

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2094	U	0.292	0.293	1.00	0.488	pCi/L	05/14/18 14:17	05/24/18 09:49	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Ba Carrier	90.9		40 - 110		05/14/18 14:17	05/24/18 09:49	1			
Y Carrier	77.0		40 - 110		05/14/18 14:17	05/24/18 09:49	1			

QC Sample Results

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

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

Lab Sample ID: LCS 160-365678/1-A
 Matrix: Water
 Analysis Batch: 367215

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 365678

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	8.29	8.578		1.01	1.00	0.356	pCi/L	104	56 - 140	
Carrier	%Yield	LCS Qualifier	Limits							
Ba Carrier	106		40 - 110							
Y Carrier	76.6		40 - 110							

Lab Sample ID: 400-153400-6 DU
 Matrix: Water
 Analysis Batch: 367318

Client Sample ID: AY10684 MW-4
 Prep Type: Total/NA
 Prep Batch: 365678

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.823		0.6425		0.222	1.00	0.276	pCi/L	0.37	1
Carrier	%Yield	DU Qualifier	Limits							
Ba Carrier	107		40 - 110							
Y Carrier	90.8		40 - 110							

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

Lab Sample ID: 400-153400-6 DU
 Matrix: Water
 Analysis Batch: 369797

Client Sample ID: AY10684 MW-4
 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	1.19		0.8784		0.238	5.00	0.276	pCi/L	0.60	

Chain of Custody Record

Client Information
 Client Contact: Ben Routhschadl
 Phone: [Blank]
 Lab PM: Whitney, Cheyenne R
 E-Mail: cheyenne.whitire@testamericainc.com

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
 SOW#: Barry Gypsum 1149

Due Date Requested: [Blank]
TAT Requested (days): Routine
FO #: [Blank]
WO #: [Blank]
Project #: 40007143
SSOW#: [Blank]

Carrier Tracking No(s): 400-56525-24537.1
Page: Page 1 of 1
Job #: [Blank]

Analysis Requested

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other: [Blank]

Preservation Codes:
 M - Hexane
 N - None
 O - Ash/O2
 P - Na2OAS
 Q - Na2SO3
 R - Na2SO4
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph. 4-5
 X - [Blank]
 Y - [Blank]
 Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewat, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F	SM 4500 Cl E	SM 4500 SO4 E	Total Number of Containers	Special Instructions/Note:
AY10679	5/1/18	0950	G	Water	X	N	X	X	X	2	MW-9
AY10680	5/1/18	1040	G	Water	X	X	X	X	X	2	MW-10
AY10681	5/1/18	1040	G	Water	X	X	X	X	X	2	MW-10 Dup (Sample Duplicate)
AY10682	5/1/18	1150	G	Water	X	X	X	X	X	2	MW-7
AY10683	5/1/18	1247	G	Water	X	X	X	X	X	2	MW-6
AY10684	5/1/18	1345	G	Water	Y	X	X	X	X	4	MW-4
AY10685	5/1/18	1448	G	Water	X	X	X	X	X	2	MW-3
AY10686	5/1/18	1551	G	Water	X	X	X	X	X	2	MW-2
AY10687	5/1/18	1615	G	Water	X	X	X	X	X	2	FB-1 (Field Blank)
AY10688	5/2/18	0948	G	Water	X	X	X	X	X	2	MW-1
AY10689	5/2/18	1045	G	Water	X	X	X	X	X	2	MW-5
AY10690	5/2/18	1148	G	Water	X	X	X	X	X	2	MW-8
AY10691	5/2/18	1210	G	Water	X	X	X	X	X	2	EB-1 (Equipment Blank)

Deliverable Requested: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Special Instructions/OC Requirements: [Blank]

Empty Kit Relinquished by: Sarah Copeland
 Date/Time: 5/8/2018, 0845
 Company: APC

Relinquished by: [Blank]
 Date/Time: [Blank]
 Company: [Blank]

Relinquished by: [Blank]
 Date/Time: [Blank]
 Company: [Blank]

Custody Seals Intact: Yes No
 Custody Seal No.: [Blank]

Method of Shipment: [Blank]
 Date/Time: 5/8/18 1500
 Company: [Blank]

Received by: [Blank]
 Date/Time: 5/8/18 0910
 Company: [Blank]

Received by: [Blank]
 Date/Time: [Blank]
 Company: [Blank]

Cooler Temperature(s) °C and Other Remarks: 4.9°C JK 1



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153400-2

SDG Number: Barry Gypsum 1149

Login Number: 153400

List Number: 1

Creator: Perez, Trina M

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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9°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 <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	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153400-2
SDG Number: Barry Gypsum 1149

Login Number: 153400

List Number: 2

Creator: Press, Nicholas B

List Source: TestAmerica St. Louis

List Creation: 05/11/18 01:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19, 19
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153400-2
 SDG: Barry Gypsum 1149

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
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-19

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 *
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	06-30-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18 *
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18 *
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Michigan	State Program	5	9005	06-30-18 *
Missouri	State Program	7	780	06-30-18 *
Nevada	State Program	9	MO000542018-1	07-31-18 *
New Jersey	NELAP	2	MO002	06-30-18 *
New York	NELAP	2	11616	03-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153400-2
SDG: Barry Gypsum 1149

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	06-30-18 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18 *
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18 *
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18 *
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Pensacola

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-1	5/2/2018 9:31	62.6	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:31	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:31	0.32	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:31	166.4	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:31	4.61	pH	pH
BY-GSA-MW-1	5/2/2018 9:31	20.44	C	Temperature
BY-GSA-MW-1	5/2/2018 9:31	9.67	NTU	Turbidity
BY-GSA-MW-1	5/2/2018 9:36	63.9	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:36	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:36	0.28	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:36	173.6	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:36	4.59	pH	pH
BY-GSA-MW-1	5/2/2018 9:36	20.4	C	Temperature
BY-GSA-MW-1	5/2/2018 9:36	5.36	NTU	Turbidity
BY-GSA-MW-1	5/2/2018 9:41	65.5	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:41	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:41	0.26	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:41	176.2	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:41	4.63	pH	pH
BY-GSA-MW-1	5/2/2018 9:41	20.44	C	Temperature
BY-GSA-MW-1	5/2/2018 9:41	3.73	NTU	Turbidity
BY-GSA-MW-1	5/2/2018 9:46	64.7	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:46	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:46	0.28	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:46	176.9	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:46	4.62	pH	pH
BY-GSA-MW-1	5/2/2018 9:46	20.46	C	Temperature
BY-GSA-MW-1	5/2/2018 9:46	1.9	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-2	5/1/2018 15:34	62.7	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:34	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:34	7.79	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:34	174.1	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:34	4.58	pH	pH
BY-GSA-MW-2	5/1/2018 15:34	20.69	C	Temperature
BY-GSA-MW-2	5/1/2018 15:34	0.25	NTU	Turbidity
BY-GSA-MW-2	5/1/2018 15:39	61.8	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:39	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:39	7.63	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:39	168.8	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:39	4.6	pH	pH
BY-GSA-MW-2	5/1/2018 15:39	20.88	C	Temperature
BY-GSA-MW-2	5/1/2018 15:39	0.2	NTU	Turbidity
BY-GSA-MW-2	5/1/2018 15:44	60.7	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:44	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:44	7.64	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:44	168.1	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:44	4.62	pH	pH
BY-GSA-MW-2	5/1/2018 15:44	20.74	C	Temperature
BY-GSA-MW-2	5/1/2018 15:44	0.15	NTU	Turbidity
BY-GSA-MW-2	5/1/2018 15:49	60.5	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:49	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:49	7.61	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:49	168.8	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:49	4.61	pH	pH
BY-GSA-MW-2	5/1/2018 15:49	20.88	C	Temperature
BY-GSA-MW-2	5/1/2018 15:49	0.14	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-3	5/1/2018 14:31	46.9	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:31	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:31	6.24	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:31	160.9	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:31	4.82	pH	pH
BY-GSA-MW-3	5/1/2018 14:31	20.97	C	Temperature
BY-GSA-MW-3	5/1/2018 14:31	0.47	NTU	Turbidity
BY-GSA-MW-3	5/1/2018 14:36	47.4	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:36	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:36	6.1	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:36	156.4	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:36	4.84	pH	pH
BY-GSA-MW-3	5/1/2018 14:36	20.9	C	Temperature
BY-GSA-MW-3	5/1/2018 14:36	0.36	NTU	Turbidity
BY-GSA-MW-3	5/1/2018 14:41	47.1	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:41	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:41	6.05	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:41	154	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:41	4.87	pH	pH
BY-GSA-MW-3	5/1/2018 14:41	20.88	C	Temperature
BY-GSA-MW-3	5/1/2018 14:41	0.25	NTU	Turbidity
BY-GSA-MW-3	5/1/2018 14:46	46.6	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:46	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:46	6.09	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:46	152.7	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:46	4.87	pH	pH
BY-GSA-MW-3	5/1/2018 14:46	20.94	C	Temperature
BY-GSA-MW-3	5/1/2018 14:46	0.13	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-4	5/1/2018 13:29	45.7	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:29	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:29	7.96	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:29	164.7	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:29	4.8	pH	pH
BY-GSA-MW-4	5/1/2018 13:29	21.44	C	Temperature
BY-GSA-MW-4	5/1/2018 13:29	3.44	NTU	Turbidity
BY-GSA-MW-4	5/1/2018 13:34	45.1	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:34	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:34	7.84	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:34	161	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:34	4.8	pH	pH
BY-GSA-MW-4	5/1/2018 13:34	21.46	C	Temperature
BY-GSA-MW-4	5/1/2018 13:34	2.06	NTU	Turbidity
BY-GSA-MW-4	5/1/2018 13:39	45.2	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:39	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:39	7.98	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:39	158.7	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:39	4.79	pH	pH
BY-GSA-MW-4	5/1/2018 13:39	21.28	C	Temperature
BY-GSA-MW-4	5/1/2018 13:39	0.8	NTU	Turbidity
BY-GSA-MW-4	5/1/2018 13:44	44.4	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:44	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:44	7.85	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:44	156.1	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:44	4.8	pH	pH
BY-GSA-MW-4	5/1/2018 13:44	21.32	C	Temperature
BY-GSA-MW-4	5/1/2018 13:44	0.73	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-5	5/2/2018 10:29	42	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:29	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:29	5.8	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:29	157.9	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:29	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:29	21.92	C	Temperature
BY-GSA-MW-5	5/2/2018 10:29	0.69	NTU	Turbidity
BY-GSA-MW-5	5/2/2018 10:34	42.1	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:34	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:34	5.77	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:34	153.4	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:34	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:34	21.87	C	Temperature
BY-GSA-MW-5	5/2/2018 10:34	0.57	NTU	Turbidity
BY-GSA-MW-5	5/2/2018 10:39	42.3	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:39	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:39	5.74	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:39	151.2	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:39	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:39	21.91	C	Temperature
BY-GSA-MW-5	5/2/2018 10:39	0.32	NTU	Turbidity
BY-GSA-MW-5	5/2/2018 10:44	42.4	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:44	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:44	5.75	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:44	150.5	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:44	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:44	21.91	C	Temperature
BY-GSA-MW-5	5/2/2018 10:44	0.29	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-6	5/1/2018 12:30	61	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:30	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:30	7.13	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:30	149.1	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:30	5.6	pH	pH
BY-GSA-MW-6	5/1/2018 12:30	22.55	C	Temperature
BY-GSA-MW-6	5/1/2018 12:30	1.44	NTU	Turbidity
BY-GSA-MW-6	5/1/2018 12:35	62.4	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:35	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:35	7.22	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:35	143.5	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:35	5.65	pH	pH
BY-GSA-MW-6	5/1/2018 12:35	22.61	C	Temperature
BY-GSA-MW-6	5/1/2018 12:35	0.56	NTU	Turbidity
BY-GSA-MW-6	5/1/2018 12:40	63.7	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:40	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:40	7.12	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:40	141.8	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:40	5.69	pH	pH
BY-GSA-MW-6	5/1/2018 12:40	22.47	C	Temperature
BY-GSA-MW-6	5/1/2018 12:40	0.5	NTU	Turbidity
BY-GSA-MW-6	5/1/2018 12:45	63.4	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:45	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:45	7	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:45	139.4	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:45	5.71	pH	pH
BY-GSA-MW-6	5/1/2018 12:45	22.48	C	Temperature
BY-GSA-MW-6	5/1/2018 12:45	0.35	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-7	5/1/2018 11:34	30.5	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:34	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:34	6.9	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:34	163.6	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:34	4.87	pH	pH
BY-GSA-MW-7	5/1/2018 11:34	21.48	C	Temperature
BY-GSA-MW-7	5/1/2018 11:34	1.3	NTU	Turbidity
BY-GSA-MW-7	5/1/2018 11:39	32.1	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:39	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:39	6.81	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:39	159.1	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:39	4.87	pH	pH
BY-GSA-MW-7	5/1/2018 11:39	21.46	C	Temperature
BY-GSA-MW-7	5/1/2018 11:39	0.96	NTU	Turbidity
BY-GSA-MW-7	5/1/2018 11:44	31.9	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:44	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:44	6.74	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:44	157.8	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:44	4.88	pH	pH
BY-GSA-MW-7	5/1/2018 11:44	21.45	C	Temperature
BY-GSA-MW-7	5/1/2018 11:44	0.55	NTU	Turbidity
BY-GSA-MW-7	5/1/2018 11:49	32.3	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:49	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:49	6.55	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:49	156.5	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:49	4.89	pH	pH
BY-GSA-MW-7	5/1/2018 11:49	21.51	C	Temperature
BY-GSA-MW-7	5/1/2018 11:49	0.58	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-8	5/2/2018 11:21	41.2	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:21	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:21	1.07	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:21	143.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:21	4.96	pH	pH
BY-GSA-MW-8	5/2/2018 11:21	21.83	C	Temperature
BY-GSA-MW-8	5/2/2018 11:21	24	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:26	41.4	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:26	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:26	1.04	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:26	148.3	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:26	4.99	pH	pH
BY-GSA-MW-8	5/2/2018 11:26	21.86	C	Temperature
BY-GSA-MW-8	5/2/2018 11:26	12.4	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:31	41	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:31	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:31	1	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:31	143.1	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:31	4.98	pH	pH
BY-GSA-MW-8	5/2/2018 11:31	21.79	C	Temperature
BY-GSA-MW-8	5/2/2018 11:31	9.17	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:36	41	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:36	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:36	0.98	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:36	142.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:36	4.99	pH	pH
BY-GSA-MW-8	5/2/2018 11:36	21.82	C	Temperature
BY-GSA-MW-8	5/2/2018 11:36	6.5	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:41	41.1	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:41	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:41	0.99	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:41	141.1	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:41	4.97	pH	pH
BY-GSA-MW-8	5/2/2018 11:41	21.79	C	Temperature
BY-GSA-MW-8	5/2/2018 11:41	5.09	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:46	41.1	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:46	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:46	0.98	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:46	139.4	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:46	4.99	pH	pH
BY-GSA-MW-8	5/2/2018 11:46	21.82	C	Temperature
BY-GSA-MW-8	5/2/2018 11:46	4.91	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-9	5/1/2018 9:33	60.7	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:33	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:33	2.09	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:33	176.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:33	4.43	pH	pH
BY-GSA-MW-9	5/1/2018 9:33	21.49	C	Temperature
BY-GSA-MW-9	5/1/2018 9:33	0.18	NTU	Turbidity
BY-GSA-MW-9	5/1/2018 9:38	60.7	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:38	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:38	2.06	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:38	170.8	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:38	4.46	pH	pH
BY-GSA-MW-9	5/1/2018 9:38	21.52	C	Temperature
BY-GSA-MW-9	5/1/2018 9:38	0.31	NTU	Turbidity
BY-GSA-MW-9	5/1/2018 9:43	60.2	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:43	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:43	2.1	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:43	168.3	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:43	4.48	pH	pH
BY-GSA-MW-9	5/1/2018 9:43	21.51	C	Temperature
BY-GSA-MW-9	5/1/2018 9:43	0.64	NTU	Turbidity
BY-GSA-MW-9	5/1/2018 9:48	60	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:48	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:48	2.03	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:48	166.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:48	4.46	pH	pH
BY-GSA-MW-9	5/1/2018 9:48	21.55	C	Temperature
BY-GSA-MW-9	5/1/2018 9:48	0.68	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-10	5/1/2018 10:24	56.8	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:24	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:24	4.82	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:24	175.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:24	4.61	pH	pH
BY-GSA-MW-10	5/1/2018 10:24	20.92	C	Temperature
BY-GSA-MW-10	5/1/2018 10:24	4.2	NTU	Turbidity
BY-GSA-MW-10	5/1/2018 10:29	57.2	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:29	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:29	4.87	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:29	172.5	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:29	4.59	pH	pH
BY-GSA-MW-10	5/1/2018 10:29	20.93	C	Temperature
BY-GSA-MW-10	5/1/2018 10:29	3.07	NTU	Turbidity
BY-GSA-MW-10	5/1/2018 10:34	55.5	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:34	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:34	4.95	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:34	169.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:34	4.62	pH	pH
BY-GSA-MW-10	5/1/2018 10:34	20.96	C	Temperature
BY-GSA-MW-10	5/1/2018 10:34	1.32	NTU	Turbidity
BY-GSA-MW-10	5/1/2018 10:39	56.1	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:39	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:39	4.84	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:39	169	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:39	4.61	pH	pH
BY-GSA-MW-10	5/1/2018 10:39	21.06	C	Temperature
BY-GSA-MW-10	5/1/2018 10:39	0.62	NTU	Turbidity

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



Sample Group : WMWBARG_1187

Project/Site : Barry Gypsum
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks, Greg Dyer, & Lauren Parker

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control: Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lbmidkif@southernco.com, c=US
Date: 2018.12.18 10:49:52 -06'00'

Supervision: T. Durant
Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2018.12.18 17:06:46 -06'00'

Case Narrative



Metals ICP

Barry Gypsum

WMWBARG_1187

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>
AY27703	633639	WMWBARG_1187
AY27704	633639	WMWBARG_1187
AY27705	633639	WMWBARG_1187
AY27706	633639	WMWBARG_1187
AY27707	633639	WMWBARG_1187
AY27708	633639	WMWBARG_1187
AY27709	633639	WMWBARG_1187
AY27710	633639	WMWBARG_1187
AY27711	633639	WMWBARG_1187
AY27712	633639	WMWBARG_1187
AY27713	633640	WMWBARG_1187
AY27714	633640	WMWBARG_1187
AY27715	633640	WMWBARG_1187

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
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:

- 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.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Metals ICPMS

Barry Gypsum

WMWBARG_1187

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>
AY27703	634107	WMWBARG_1187
AY27704	634107	WMWBARG_1187
AY27705	634107	WMWBARG_1187
AY27706	634107	WMWBARG_1187
AY27707	634107	WMWBARG_1187
AY27708	634107	WMWBARG_1187
AY27709	634107	WMWBARG_1187
AY27710	634107	WMWBARG_1187
AY27711	634107	WMWBARG_1187
AY27712	634107	WMWBARG_1187
AY27713	634108	WMWBARG_1187
AY27714	634108	WMWBARG_1187
AY27715	634108	WMWBARG_1187

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
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:

- 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 x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Mercury

Barry Gypsum

WMWBARG_1187

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>
AY27703	633836	WMWBARG_1187
AY27704	633836	WMWBARG_1187
AY27705	633836	WMWBARG_1187
AY27706	633836	WMWBARG_1187
AY27707	633836	WMWBARG_1187
AY27708	633836	WMWBARG_1187
AY27709	633836	WMWBARG_1187
AY27710	633836	WMWBARG_1187
AY27711	633836	WMWBARG_1187
AY27712	633836	WMWBARG_1187
AY27713	633837	WMWBARG_1187
AY27714	633837	WMWBARG_1187
AY27715	633837	WMWBARG_1187

4. All of the above samples were analyzed and prepared by EPA 245.1.
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:

- 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.
 9. The QC associated with samples AY27713-15 is from project WMWBARG_1184.



TDS

Barry Gypsum

WMWBARG_1187

- This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
- Refer to comments on Chain of Custody for information regarding sample receipt.
- 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>
AY27703	633706	WMWBARG_1187
AY27704	633706	WMWBARG_1187
AY27705	633706	WMWBARG_1187
AY27706	633706	WMWBARG_1187
AY27707	633706	WMWBARG_1187
AY27708	633706	WMWBARG_1187
AY27709	633706	WMWBARG_1187
AY27710	633706	WMWBARG_1187
AY27711	633706	WMWBARG_1187
AY27712	633706	WMWBARG_1187
AY27713	633962	WMWBARG_1187
AY27714	633962	WMWBARG_1187
AY27715	633962	WMWBARG_1187

- All of the above samples were analyzed by Standard Method 2540C.
- All samples were analyzed within the established hold times.
- All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%, except for the following:
 - Precision was outside of the acceptable limits for sample AY27712, but the results were below the reporting limit. Therefore, the results are acceptable.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
 - AY27712
 - AY27714
- The QC associated with samples AY27713-15 is from project WMWBARG_1184.

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY27703

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.152	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	0.139	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.61	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	48.0	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY27703

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115		97.8	70 to 130		2.44	20
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115		97.4	70 to 130		0.836	20
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115		95.7	70 to 130		0.473	20
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115		109	70 to 130		6.26	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115		102	70 to 130		0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115		91.3	70 to 130		0.212	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115		97.2	70 to 130		1.20	20
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115		102	70 to 130		2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046		96.4	70 to 130		0.932	20
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115		102	70 to 130		0.364	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15		95.0	70 to 130		1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75		97.5	70 to 130		1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23		94.5	70 to 130		1.18	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115		96.1	70 to 130		0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115		103	70 to 130		0.351	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY27703

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60			0.00	5

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY27704

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.112	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0484	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.922	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	J 0.00205	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	31.3	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY27704

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27712	Cobalt, Total	mg/L	0.0000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115		97.4	70 to 130	0.836	20
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115		109	70 to 130	6.26	20
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115		95.7	70 to 130	0.473	20
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115		97.8	70 to 130	2.44	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115		102	70 to 130	0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115		91.3	70 to 130	0.212	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115		96.1	70 to 130	0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115		103	70 to 130	0.351	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115		97.2	70 to 130	1.20	20
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115		102	70 to 130	2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046		96.4	70 to 130	0.932	20
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115		102	70 to 130	0.364	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15		95.0	70 to 130	1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75		97.5	70 to 130	1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23		94.5	70 to 130	1.18	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY27704

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60		0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY27705

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0657	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0836	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.41	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00286	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	38.0	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY27705

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115	95.7	70 to 130	0.473	20
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115	109	70 to 130	6.26	20
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115	97.8	70 to 130	2.44	20
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115	97.4	70 to 130	0.836	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115	91.3	70 to 130	0.212	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115	96.1	70 to 130	0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115	103	70 to 130	0.351	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15	95.0	70 to 130	1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75	97.5	70 to 130	1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.18	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115	97.2	70 to 130	1.20	20
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046	96.4	70 to 130	0.932	20
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115	102	70 to 130	0.364	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY27705

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60		0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY27706

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0994	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.52	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	32.7	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY27706

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY27712	Cobalt, Total	mg/L	0.0000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115	97.4	70 to 130	0.836	20
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115	109	70 to 130	6.26	20
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115	95.7	70 to 130	0.473	20
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115	97.8	70 to 130	2.44	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115	91.3	70 to 130	0.212	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115	97.2	70 to 130	1.20	20
AY27712	Cadmium, Total	mg/L	0.0000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046	96.4	70 to 130	0.932	20
AY27712	Thallium, Total	mg/L	0.0000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115	102	70 to 130	0.364	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115	96.1	70 to 130	0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115	103	70 to 130	0.351	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15	95.0	70 to 130	1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75	97.5	70 to 130	1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.18	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY27706

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit	
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60			0.00	5

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY27707

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0427	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.798	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	30.7	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY27707

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115	95.7	70 to 130	0.473	20	
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115	109	70 to 130	6.26	20	
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115	97.8	70 to 130	2.44	20	
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115	97.4	70 to 130	0.836	20	
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.104	20	
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115	91.3	70 to 130	0.212	20	
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15	95.0	70 to 130	1.53	20	
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75	97.5	70 to 130	1.20	20	
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.18	20	
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115	97.2	70 to 130	1.20	20	
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	2.01	20	
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046	96.4	70 to 130	0.932	20	
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115	102	70 to 130	0.364	20	
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115	96.1	70 to 130	0.614	20	
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115	103	70 to 130	0.351	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY27707

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60			0.00	5

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Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: AY27708

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0427	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.859	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	25.3	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: AY27708

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27712	Cobalt, Total	mg/L	0.0000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115		97.4	70 to 130	0.836	20
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115		109	70 to 130	6.26	20
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115		95.7	70 to 130	0.473	20
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115		97.8	70 to 130	2.44	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115		102	70 to 130	0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115		91.3	70 to 130	0.212	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115		96.1	70 to 130	0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115		103	70 to 130	0.351	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115		97.2	70 to 130	1.20	20
AY27712	Cadmium, Total	mg/L	0.0000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115		102	70 to 130	2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046		96.4	70 to 130	0.932	20
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115		102	70 to 130	0.364	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15		95.0	70 to 130	1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75		97.5	70 to 130	1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23		94.5	70 to 130	1.18	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: AY27708

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit	
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY27709

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0388	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.743	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	35.3	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY27709

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit	
				Limit	Spike				Limit	Rec	Limit	Prec			
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115		109	70 to 130		6.26	20
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115		97.4	70 to 130		0.836	20
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115		97.8	70 to 130		2.44	20
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115		95.7	70 to 130		0.473	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115		96.1	70 to 130		0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115		103	70 to 130		0.351	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115		97.2	70 to 130		1.20	20
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115		102	70 to 130		2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046		96.4	70 to 130		0.932	20
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115		102	70 to 130		0.364	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15		95.0	70 to 130		1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75		97.5	70 to 130		1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23		94.5	70 to 130		1.18	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115		102	70 to 130		0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115		91.3	70 to 130		0.212	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY27709

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60	0.00	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

Comments:

CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY27710

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0720	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0265	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.30	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The max volume of 150mL of sample was filtered. LBM 12/17/2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY27710

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115		109	70 to 130	6.26	20
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115		97.4	70 to 130	0.836	20
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115		95.7	70 to 130	0.473	20
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115		97.8	70 to 130	2.44	20
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115		102	70 to 130	0.104	20
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115		91.3	70 to 130	0.212	20
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115		96.1	70 to 130	0.614	20
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115		103	70 to 130	0.351	20
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115		97.2	70 to 130	1.20	20
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115		102	70 to 130	2.01	20
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046		96.4	70 to 130	0.932	20
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115		102	70 to 130	0.364	20
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15		95.0	70 to 130	1.53	20
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75		97.5	70 to 130	1.20	20
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23		94.5	70 to 130	1.18	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, 2019

Comments: The max volume of 150mL of sample was filtered. LBM 12/17/2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY27710

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60		0.00	5

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The max volume of 150mL of sample was filtered. LBM 12/17/2018

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY27711

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0804	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.69	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	36.0	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY27711

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115	95.7	70 to 130	0.473	20		
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115	97.4	70 to 130	0.836	20		
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115	97.8	70 to 130	2.44	20		
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115	109	70 to 130	6.26	20		
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.104	20		
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115	91.3	70 to 130	0.212	20		
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15	95.0	70 to 130	1.53	20		
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75	97.5	70 to 130	1.20	20		
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.18	20		
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115	97.2	70 to 130	1.20	20		
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	2.01	20		
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046	96.4	70 to 130	0.932	20		
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115	102	70 to 130	0.364	20		
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115	96.1	70 to 130	0.614	20		
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115	103	70 to 130	0.351	20		

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY27711

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60		0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARGE
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY27712

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/3/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	11/29/2018	SM 2540C		1			11/29/2018	Date

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: Precision for TDS was outside of the acceptable limits, but the results were below the reporting limit. Therefore, the results are acceptable. LBM 12/04/18

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGE
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY27712

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY27712	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0957	0.0961	0.0963	0.085 to 0.115	95.7	70 to 130	0.473	20	
AY27712	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.0978	0.0955	0.0969	0.085 to 0.115	97.8	70 to 130	2.44	20	
AY27712	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.102	0.106	0.085 to 0.115	109	70 to 130	6.26	20	
AY27712	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0961	0.0966	0.0991	0.085 to 0.115	96.1	70 to 130	0.614	20	
AY27712	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.103	0.105	0.085 to 0.115	103	70 to 130	0.351	20	
AY27712	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.0974	0.0966	0.0995	0.085 to 0.115	97.4	70 to 130	0.836	20	
AY27712	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.104	20	
AY27712	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0913	0.0911	0.0920	0.085 to 0.115	91.3	70 to 130	0.212	20	
AY27712	Boron, Total	mg/L	0.0000279	0.044	1.00	0.950	0.964	0.977	0.85 to 1.15	95.0	70 to 130	1.53	20	
AY27712	Calcium, Total	mg/L	0.00235	0.22	5.00	4.88	4.94	5.00	4.25 to 5.75	97.5	70 to 130	1.20	20	
AY27712	Lithium, Total	mg/L	-0.0000867	0.022	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.18	20	
AY27712	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0972	0.0984	0.101	0.085 to 0.115	97.2	70 to 130	1.20	20	
AY27712	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	2.01	20	
AY27712	Mercury, Total by CVAA	mg/L	0.0000635	0.0005	0.004	0.00386	0.00389	0.00381	0.0034 to 0.0046	96.4	70 to 130	0.932	20	
AY27712	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.102	0.0992	0.085 to 0.115	102	70 to 130	0.364	20	

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: Precision for TDS was outside of the acceptable limits, but the results were below the reporting limit. Therefore, the results are acceptable. LBM 12/04/18

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGE B
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY27712

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit	
AY27712	Solids, Dissolved	mg/L	-1.00	25			0.67	53.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: Precision for TDS was outside of the acceptable limits, but the results were below the reporting limit. Therefore, the results are acceptable. LBM 12/04/18

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY27713

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.158	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	J 0.000801	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0207	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.49	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	J 0.00209	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	31.3	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY27713

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
AY27715	Lithium, Total	mg/L	-0.0000746	0.022	0.20	0.196	0.196	0.191	0.17 to 0.23	97.8	70 to 130	0.0368	20
AY27715	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0896	0.0898	0.0920	0.085 to 0.115	89.6	70 to 130	0.252	20
AY27715	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.107	0.106	0.085 to 0.115	108	70 to 130	1.86	20
AY27715	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.111	0.110	0.0995	0.085 to 0.115	95.0	70 to 130	0.314	20
AY27715	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.251	0.251	0.0969	0.085 to 0.115	94.2	70 to 130	0.0186	20
AY27715	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.102	0.105	0.085 to 0.115	103	70 to 130	0.511	20
AY27715	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0966	0.0965	0.0991	0.085 to 0.115	96.6	70 to 130	0.113	20
AY27715	Boron, Total	mg/L	-0.000335	0.044	1.00	1.08	1.08	0.975	0.85 to 1.15	96.7	70 to 130	0.440	20
AY27715	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.613	20
AY27715	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0955	0.0964	0.0963	0.085 to 0.115	95.5	70 to 130	0.933	20
AY27715	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0923	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20
AY27715	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0983	0.0994	0.101	0.085 to 0.115	98.3	70 to 130	1.15	20
AY27715	Calcium, Total	mg/L	0.00378	0.22	5.00	6.93	6.92	4.92	4.25 to 5.75	98.3	70 to 130	0.0299	20
AY27715	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.101	0.0992	0.085 to 0.115	102	70 to 130	0.750	20

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 744 County Road 87, GSC#8
 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY27713

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60			4.11	5

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Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGFB
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY27714

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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
 Lauren Parker

Customer Account: WMWBARGFB
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY27714

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY27715	Lithium, Total	mg/L	-0.0000746	0.022	0.20	0.196	0.196	0.191	0.17 to 0.23	97.8	70 to 130	0.0368	20
AY27715	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0896	0.0898	0.0920	0.085 to 0.115	89.6	70 to 130	0.252	20
AY27715	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0983	0.0994	0.101	0.085 to 0.115	98.3	70 to 130	1.15	20
AY27715	Calcium, Total	mg/L	0.00378	0.22	5.00	6.93	6.92	4.92	4.25 to 5.75	98.3	70 to 130	0.0299	20
AY27715	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.101	0.0992	0.085 to 0.115	102	70 to 130	0.750	20
AY27715	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.107	0.106	0.085 to 0.115	108	70 to 130	1.86	20
AY27715	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.111	0.110	0.0995	0.085 to 0.115	95.0	70 to 130	0.314	20
AY27715	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0966	0.0965	0.0991	0.085 to 0.115	96.6	70 to 130	0.113	20
AY27715	Boron, Total	mg/L	-0.000335	0.044	1.00	1.08	1.08	0.975	0.85 to 1.15	96.7	70 to 130	0.440	20
AY27715	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.613	20
AY27715	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0955	0.0964	0.0963	0.085 to 0.115	95.5	70 to 130	0.933	20
AY27715	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0923	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20
AY27715	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.251	0.251	0.0969	0.085 to 0.115	94.2	70 to 130	0.0186	20
AY27715	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.102	0.105	0.085 to 0.115	103	70 to 130	0.511	20

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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGFB
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY27714

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60			4.11	5

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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY27715

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.157	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	J 0.000856	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	0.110	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.01	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	0.0157	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	50.7	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY27715

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit
				Limit	Spike					Rec	Limit	
AY27715	Lithium, Total	mg/L	-0.0000746	0.022	0.20	0.196	0.196	0.191	0.17 to 0.23	97.8	70 to 130	0.0368 20
AY27715	Molybdenum, Total	mg/L	0.0000326	0.0044	0.10	0.0896	0.0898	0.0920	0.085 to 0.115	89.6	70 to 130	0.252 20
AY27715	Beryllium, Total	mg/L	0.000000	0.00132	0.10	0.109	0.107	0.106	0.085 to 0.115	108	70 to 130	1.86 20
AY27715	Cobalt, Total	mg/L	0.00000494	0.0044	0.10	0.111	0.110	0.0995	0.085 to 0.115	95.0	70 to 130	0.314 20
AY27715	Barium, Total	mg/L	0.0000248	0.0044	0.10	0.251	0.251	0.0969	0.085 to 0.115	94.2	70 to 130	0.0186 20
AY27715	Selenium, Total	mg/L	0.0000291	0.0044	0.10	0.103	0.102	0.105	0.085 to 0.115	103	70 to 130	0.511 20
AY27715	Antimony, Total	mg/L	0.0000881	0.00176	0.10	0.0966	0.0965	0.0991	0.085 to 0.115	96.6	70 to 130	0.113 20
AY27715	Boron, Total	mg/L	-0.000335	0.044	1.00	1.08	1.08	0.975	0.85 to 1.15	96.7	70 to 130	0.440 20
AY27715	Cadmium, Total	mg/L	0.00000699	0.00066	0.10	0.101	0.102	0.104	0.085 to 0.115	101	70 to 130	0.613 20
AY27715	Chromium, Total	mg/L	0.0000245	0.0044	0.10	0.0955	0.0964	0.0963	0.085 to 0.115	95.5	70 to 130	0.933 20
AY27715	Lead, Total	mg/L	0.0000184	0.0022	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.0923 20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26 20
AY27715	Arsenic, Total	mg/L	0.0000218	0.0022	0.10	0.0983	0.0994	0.101	0.085 to 0.115	98.3	70 to 130	1.15 20
AY27715	Calcium, Total	mg/L	0.00378	0.22	5.00	6.93	6.92	4.92	4.25 to 5.75	98.3	70 to 130	0.0299 20
AY27715	Thallium, Total	mg/L	0.00000873	0.00044	0.10	0.102	0.101	0.0992	0.085 to 0.115	102	70 to 130	0.750 20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY27715

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60			4.11	5

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Laboratory certification ID: E571114

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Comments:

CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
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

Field Complete
 Lab Complete

Outside Lab

Lab ETA 11/28/2018 18:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Ben Rothschadl	Location	Barry Gypsum

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Secured Groundwater Samples in GSC Building 8 Shipping Lab at 1830 on 11/28/2018.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	11/26/18	13:46	3	Groundwater		AY27703
MW-10	11/26/2018	14:38	3	Groundwater		AY27704
MW-6	11/26/2018	15:42	3	Groundwater		AY27705
MW-4	11/26/2018	16:41	3	Groundwater		AY27706
MW-7	11/27/2018	08:54	3	Groundwater		AY27707
MW-7 DUP	11/27/2018	08:54	3	Sample Duplicate		AY27708
MW-8	11/27/2018	10:06	3	Groundwater		AY27709
MW-5	11/27/2018	11:08	3	Groundwater		AY27710
MW-3	11/27/2018	12:11	3	Groundwater		AY27711
EB-1	11/27/2018	12:50	3	Equipment Blank		AY27712
MW-2	11/27/2018	13:34	3	Groundwater		AY27713
FB-1	11/27/2018	14:15	3	Field Blank		AY27714
MW-1	11/27/2018	15:07	3	Groundwater		AY27715

Relinquished By	Received By	Date/Time
Benjamin Tyler Rothschadl <small>Digitally signed by Benjamin Tyler Rothschadl Date: 2018.11.28 18:19:03 -06'00'</small>	Laura Midkiff <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.11.29 07:08:20 -06'00'</small>	11/29/2018 07:08

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-35564-10-1	Cooler Temp
Sample Event	1187	1.2 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		7095-38535-1-1 & 7114-38608-1-1



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA 11/28/2018 18:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Ben Rothschadl	Location	Barry Gypsum

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 Anions	250 mL	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments: Radium Duplicate collected at MW-2. Secured Groundwater Samples in GSC Building 8 Shipping Lab at 1830 on 11/28/2018.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	11/26/18	13:46	2	Groundwater		AY27716
MW-10	11/26/2018	14:38	2	Groundwater		AY27717
MW-6	11/26/2018	15:42	2	Groundwater		AY27718
MW-4	11/26/2018	16:41	2	Groundwater		AY27719
MW-7	11/27/2018	08:54	2	Groundwater		AY27720
MW-7 DUP	11/27/2018	08:54	2	Sample Duplicate		AY27721
MW-8	11/27/2018	10:06	2	Groundwater		AY27722
MW-5	11/27/2018	11:08	2	Groundwater		AY27723
MW-3	11/27/2018	12:11	2	Groundwater		AY27724
EB-1	11/27/2018	12:50	2	Equipment Blank		AY27725
MW-2	11/27/2018	13:34	4	Groundwater		AY27726
FB-1	11/27/2018	14:15	2	Field Blank		AY27727
MW-1	11/27/2018	15:07	2	Groundwater		AY27728

Relinquished By	Received By	Date/Time
Benjamin Tyler Rothschadl <small>Digitally signed by Benjamin Tyler Rothschadl Date: 2018.11.28 18:25:02 -06'00'</small>	Laura Midkiff <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.11.29 07:09:46 -06'00'</small>	11/29/2018 07:09

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	4677-35564-10-1		
Sample Event	1187		
		Cooler Temp	1.2 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	7095-38535-1-1 & 7114-38608-1-1

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: 400-162854-1

TestAmerica Sample Delivery Group: Barry Gypsum 1187

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

12/14/2018 5:59:29 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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www.testamericainc.com

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

Job ID: 400-162854-1

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-162854-1**

General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 422889 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.

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Detection Summary

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

Client Sample ID: AY27716 MW-9

Lab Sample ID: 400-162854-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11		2.0	1.4	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	7.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27717 MW-10

Lab Sample ID: 400-162854-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		2.0	1.4	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	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27718 MW-6

Lab Sample ID: 400-162854-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27719 MW-4

Lab Sample ID: 400-162854-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27720 MW-7

Lab Sample ID: 400-162854-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27721 MW-7 DUP

Lab Sample ID: 400-162854-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27722 MW-8

Lab Sample ID: 400-162854-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9	F1	2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27723 MW-5

Lab Sample ID: 400-162854-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7	F1	2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27724 MW-3

Lab Sample ID: 400-162854-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
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This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

Client Sample ID: AY27724 MW-3 (Continued)

Lab Sample ID: 400-162854-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27725 EB-1

Lab Sample ID: 400-162854-10

No Detections.

Client Sample ID: AY27726 MW-2

Lab Sample ID: 400-162854-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY27727 FB-1

Lab Sample ID: 400-162854-12

No Detections.

Client Sample ID: AY27728 MW-1

Lab Sample ID: 400-162854-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	22		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 Barry

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

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 Barry

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-162854-1	AY27716 MW-9	Water	11/26/18 13:46	12/01/18 15:15
400-162854-2	AY27717 MW-10	Water	11/26/18 14:38	12/01/18 15:15
400-162854-3	AY27718 MW-6	Water	11/26/18 15:42	12/01/18 15:15
400-162854-4	AY27719 MW-4	Water	11/26/18 16:41	12/01/18 15:15
400-162854-5	AY27720 MW-7	Water	11/27/18 08:54	12/01/18 15:15
400-162854-6	AY27721 MW-7 DUP	Water	11/27/18 08:54	12/01/18 15:15
400-162854-7	AY27722 MW-8	Water	11/27/18 10:06	12/01/18 15:15
400-162854-8	AY27723 MW-5	Water	11/27/18 11:08	12/01/18 15:15
400-162854-9	AY27724 MW-3	Water	11/27/18 12:11	12/01/18 15:15
400-162854-10	AY27725 EB-1	Water	11/27/18 12:50	12/01/18 15:15
400-162854-11	AY27726 MW-2	Water	11/27/18 13:34	12/01/18 15:15
400-162854-12	AY27727 FB-1	Water	11/27/18 14:15	12/01/18 15:15
400-162854-13	AY27728 MW-1	Water	11/27/18 15:07	12/01/18 15:15

Client Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Client Sample ID: AY27716 MW-9

Lab Sample ID: 400-162854-1

Date Collected: 11/26/18 13:46

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		2.0	1.4	mg/L			12/11/18 09:03	1
Fluoride	0.070	J	0.10	0.032	mg/L			12/12/18 16:35	1
Sulfate	7.3		5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27717 MW-10

Lab Sample ID: 400-162854-2

Date Collected: 11/26/18 14:38

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	1.4	mg/L			12/11/18 09:03	1
Fluoride	0.080	J	0.10	0.032	mg/L			12/12/18 16:45	1
Sulfate	8.3		5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27718 MW-6

Lab Sample ID: 400-162854-3

Date Collected: 11/26/18 15:42

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	1.4	mg/L			12/11/18 09:03	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 16:48	1
Sulfate	7.4		5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27719 MW-4

Lab Sample ID: 400-162854-4

Date Collected: 11/26/18 16:41

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	1.4	mg/L			12/11/18 09:03	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 16:52	1
Sulfate	5.1		5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27720 MW-7

Lab Sample ID: 400-162854-5

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	1.4	mg/L			12/11/18 09:03	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 16:55	1
Sulfate	1.9	J	5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Client Sample ID: AY27721 MW-7 DUP

Lab Sample ID: 400-162854-6

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	1.4	mg/L			12/11/18 09:03	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 16:57	1
Sulfate	1.9	J	5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27722 MW-8

Lab Sample ID: 400-162854-7

Date Collected: 11/27/18 10:06

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9	F1	2.0	1.4	mg/L			12/12/18 11:42	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:00	1
Sulfate	2.8	J	5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27723 MW-5

Lab Sample ID: 400-162854-8

Date Collected: 11/27/18 11:08

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7	F1	2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:02	1
Sulfate	5.5		5.0	1.4	mg/L			12/10/18 15:22	1

Client Sample ID: AY27724 MW-3

Lab Sample ID: 400-162854-9

Date Collected: 11/27/18 12:11

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	1.4	mg/L			12/12/18 11:42	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:15	1
Sulfate	6.5		5.0	1.4	mg/L			12/13/18 10:55	1

Client Sample ID: AY27725 EB-1

Lab Sample ID: 400-162854-10

Date Collected: 11/27/18 12:50

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:21	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 10:55	1

Client Sample ID: AY27726 MW-2

Lab Sample ID: 400-162854-11

Date Collected: 11/27/18 13:34

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	1.4	mg/L			12/12/18 11:45	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Client Sample ID: AY27726 MW-2

Lab Sample ID: 400-162854-11

Date Collected: 11/27/18 13:34

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:25	1
Sulfate	3.7	J	5.0	1.4	mg/L			12/13/18 10:55	1

Client Sample ID: AY27727 FB-1

Lab Sample ID: 400-162854-12

Date Collected: 11/27/18 14:15

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:29	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:02	1

Client Sample ID: AY27728 MW-1

Lab Sample ID: 400-162854-13

Date Collected: 11/27/18 15:07

Matrix: Water

Date Received: 12/01/18 15:15

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7		2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:33	1
Sulfate	22		5.0	1.4	mg/L			12/13/18 11:02	1

Definitions/Glossary

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

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 Barry

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Client Sample ID: AY27716 MW-9

Date Collected: 11/26/18 13:46

Date Received: 12/01/18 15:15

Lab Sample ID: 400-162854-1

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	422749	12/11/18 09:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 16:35	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27717 MW-10

Date Collected: 11/26/18 14:38

Date Received: 12/01/18 15:15

Lab Sample ID: 400-162854-2

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	422749	12/11/18 09:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 16:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27718 MW-6

Date Collected: 11/26/18 15:42

Date Received: 12/01/18 15:15

Lab Sample ID: 400-162854-3

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	422749	12/11/18 09:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 16:48	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27719 MW-4

Date Collected: 11/26/18 16:41

Date Received: 12/01/18 15:15

Lab Sample ID: 400-162854-4

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	422749	12/11/18 09:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 16:52	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27720 MW-7

Date Collected: 11/27/18 08:54

Date Received: 12/01/18 15:15

Lab Sample ID: 400-162854-5

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	422749	12/11/18 09:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 16:55	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

Client Sample ID: AY27721 MW-7 DUP

Lab Sample ID: 400-162854-6

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422749	12/11/18 09:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 16:57	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27722 MW-8

Lab Sample ID: 400-162854-7

Date Collected: 11/27/18 10:06

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:42	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27723 MW-5

Lab Sample ID: 400-162854-8

Date Collected: 11/27/18 11:08

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	422643	12/10/18 15:22	RRC	TAL PEN

Client Sample ID: AY27724 MW-3

Lab Sample ID: 400-162854-9

Date Collected: 11/27/18 12:11

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:42	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:15	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 10:55	RRC	TAL PEN

Client Sample ID: AY27725 EB-1

Lab Sample ID: 400-162854-10

Date Collected: 11/27/18 12:50

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 10:55	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

Client Sample ID: AY27726 MW-2

Lab Sample ID: 400-162854-11

Date Collected: 11/27/18 13:34

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 10:55	RRC	TAL PEN

Client Sample ID: AY27727 FB-1

Lab Sample ID: 400-162854-12

Date Collected: 11/27/18 14:15

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	RRC	TAL PEN

Client Sample ID: AY27728 MW-1

Lab Sample ID: 400-162854-13

Date Collected: 11/27/18 15:07

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:33	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	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 Barry

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

General Chemistry

Analysis Batch: 422643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-1	AY27716 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-162854-2	AY27717 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-162854-3	AY27718 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-162854-4	AY27719 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-162854-5	AY27720 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-162854-6	AY27721 MW-7 DUP	Total/NA	Water	SM 4500 SO4 E	
400-162854-7	AY27722 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-162854-8	AY27723 MW-5	Total/NA	Water	SM 4500 SO4 E	
MB 400-422643/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-422643/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-422643/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-162854-8 MS	AY27723 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-162854-8 MSD	AY27723 MW-5	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 422749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-1	AY27716 MW-9	Total/NA	Water	SM 4500 CI- E	
400-162854-2	AY27717 MW-10	Total/NA	Water	SM 4500 CI- E	
400-162854-3	AY27718 MW-6	Total/NA	Water	SM 4500 CI- E	
400-162854-4	AY27719 MW-4	Total/NA	Water	SM 4500 CI- E	
400-162854-5	AY27720 MW-7	Total/NA	Water	SM 4500 CI- E	
400-162854-6	AY27721 MW-7 DUP	Total/NA	Water	SM 4500 CI- E	
MB 400-422749/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-422749/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-422749/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-162755-A-11 MS	Matrix Spike	Total/NA	Water	SM 4500 CI- E	
400-162755-A-11 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 422889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-7	AY27722 MW-8	Total/NA	Water	SM 4500 CI- E	
400-162854-8	AY27723 MW-5	Total/NA	Water	SM 4500 CI- E	
400-162854-9	AY27724 MW-3	Total/NA	Water	SM 4500 CI- E	
400-162854-10	AY27725 EB-1	Total/NA	Water	SM 4500 CI- E	
400-162854-11	AY27726 MW-2	Total/NA	Water	SM 4500 CI- E	
400-162854-12	AY27727 FB-1	Total/NA	Water	SM 4500 CI- E	
400-162854-13	AY27728 MW-1	Total/NA	Water	SM 4500 CI- E	
MB 400-422889/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-422889/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-422889/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-162854-7 MS	AY27722 MW-8	Total/NA	Water	SM 4500 CI- E	
400-162854-7 MSD	AY27722 MW-8	Total/NA	Water	SM 4500 CI- E	
400-162854-8 MS	AY27723 MW-5	Total/NA	Water	SM 4500 CI- E	
400-162854-8 MSD	AY27723 MW-5	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 422987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-1	AY27716 MW-9	Total/NA	Water	SM 4500 F C	
400-162854-2	AY27717 MW-10	Total/NA	Water	SM 4500 F C	
400-162854-3	AY27718 MW-6	Total/NA	Water	SM 4500 F C	
400-162854-4	AY27719 MW-4	Total/NA	Water	SM 4500 F C	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-162854-1
SDG: Barry Gypsum 1187

General Chemistry (Continued)

Analysis Batch: 422987 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-5	AY27720 MW-7	Total/NA	Water	SM 4500 F C	
400-162854-6	AY27721 MW-7 DUP	Total/NA	Water	SM 4500 F C	
400-162854-7	AY27722 MW-8	Total/NA	Water	SM 4500 F C	
400-162854-8	AY27723 MW-5	Total/NA	Water	SM 4500 F C	
400-162854-9	AY27724 MW-3	Total/NA	Water	SM 4500 F C	
400-162854-10	AY27725 EB-1	Total/NA	Water	SM 4500 F C	
400-162854-11	AY27726 MW-2	Total/NA	Water	SM 4500 F C	
400-162854-12	AY27727 FB-1	Total/NA	Water	SM 4500 F C	
400-162854-13	AY27728 MW-1	Total/NA	Water	SM 4500 F C	
MB 400-422987/2	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-422987/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-162854-1 MS	AY27716 MW-9	Total/NA	Water	SM 4500 F C	
400-162854-1 MSD	AY27716 MW-9	Total/NA	Water	SM 4500 F C	
400-162854-9 DU	AY27724 MW-3	Total/NA	Water	SM 4500 F C	

Analysis Batch: 423102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-9	AY27724 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-162854-10	AY27725 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-162854-11	AY27726 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-162854-12	AY27727 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-162854-13	AY27728 MW-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-423102/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-423102/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-423102/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-162854-9 MS	AY27724 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-162854-9 MSD	AY27724 MW-3	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-422749/6
Matrix: Water
Analysis Batch: 422749

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/11/18 08:53	1

Lab Sample ID: LCS 400-422749/7
Matrix: Water
Analysis Batch: 422749

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 400-422749/3
Matrix: Water
Analysis Batch: 422749

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.38	J	mg/L		69	50 - 150

Lab Sample ID: 400-162755-A-11 MS
Matrix: Water
Analysis Batch: 422749

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		10.0	27.2		mg/L		101	73 - 120

Lab Sample ID: 400-162755-A-11 MSD
Matrix: Water
Analysis Batch: 422749

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	17		10.0	27.0		mg/L		100	73 - 120	1	8

Lab Sample ID: MB 400-422889/6
Matrix: Water
Analysis Batch: 422889

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 11:42	1

Lab Sample ID: LCS 400-422889/7
Matrix: Water
Analysis Batch: 422889

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	32.9		mg/L		110	90 - 110

Lab Sample ID: MRL 400-422889/3
Matrix: Water
Analysis Batch: 422889

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	1.64	J	mg/L		82	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Lab Sample ID: 400-162854-7 MS
Matrix: Water
Analysis Batch: 422889

Client Sample ID: AY27722 MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.9	F1	10.0	17.0	F1	mg/L		122	73 - 120

Lab Sample ID: 400-162854-7 MSD
Matrix: Water
Analysis Batch: 422889

Client Sample ID: AY27722 MW-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.9	F1	10.0	17.0	F1	mg/L		122	73 - 120	0	8

Lab Sample ID: 400-162854-8 MS
Matrix: Water
Analysis Batch: 422889

Client Sample ID: AY27723 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.7	F1	10.0	16.8	F1	mg/L		132	73 - 120

Lab Sample ID: 400-162854-8 MSD
Matrix: Water
Analysis Batch: 422889

Client Sample ID: AY27723 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.7	F1	10.0	16.6	F1	mg/L		129	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-422987/2
Matrix: Water
Analysis Batch: 422987

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			12/12/18 16:19	1

Lab Sample ID: LCS 400-422987/3
Matrix: Water
Analysis Batch: 422987

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	3.84		mg/L		96	90 - 110

Lab Sample ID: 400-162854-1 MS
Matrix: Water
Analysis Batch: 422987

Client Sample ID: AY27716 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.070	J	1.00	1.08		mg/L		101	75 - 125

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-162854-1 MSD
Matrix: Water
Analysis Batch: 422987

Client Sample ID: AY27716 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.070	J	1.00	1.08		mg/L		101	75 - 125	0	4

Lab Sample ID: 400-162854-9 DU
Matrix: Water
Analysis Batch: 422987

Client Sample ID: AY27724 MW-3
Prep Type: Total/NA

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

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-422643/6
Matrix: Water
Analysis Batch: 422643

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			12/10/18 15:08	1

Lab Sample ID: LCS 400-422643/7
Matrix: Water
Analysis Batch: 422643

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 400-422643/3
Matrix: Water
Analysis Batch: 422643

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	4.03	J	mg/L		81	50 - 150

Lab Sample ID: 400-162854-8 MS
Matrix: Water
Analysis Batch: 422643

Client Sample ID: AY27723 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.5		10.0	16.8		mg/L		114	77 - 128

Lab Sample ID: 400-162854-8 MSD
Matrix: Water
Analysis Batch: 422643

Client Sample ID: AY27723 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	5.5		10.0	16.9		mg/L		115	77 - 128	1	5

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

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

Lab Sample ID: MB 400-423102/6
Matrix: Water
Analysis Batch: 423102

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			12/13/18 10:55	1

Lab Sample ID: LCS 400-423102/7
Matrix: Water
Analysis Batch: 423102

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		95	90 - 110

Lab Sample ID: MRL 400-423102/3
Matrix: Water
Analysis Batch: 423102

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.80	J	mg/L		76	50 - 150

Lab Sample ID: 400-162854-9 MS
Matrix: Water
Analysis Batch: 423102

Client Sample ID: AY27724 MW-3
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	6.5		10.0	17.4		mg/L		109	77 - 128

Lab Sample ID: 400-162854-9 MSD
Matrix: Water
Analysis Batch: 423102

Client Sample ID: AY27724 MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	6.5		10.0	17.2		mg/L		106	77 - 128	2	5

Chain of Custody Record

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6197 (Tel) Email: lbmidkif@southernco.com Project Name: CCR Site: Barry Gypsum 1187		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SSO#W#		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier (tracking No(s)): COC No: 400-56525-24537.1 Page: 1 of 1 Job #: 102054								
Analysis Requested 9315 Ra226, 9320 Ra228, Ra226Ra228 GPPC  400-162854 COC		Analysis Requested Perform MS/MSD (Yes or No)		Analysis Requested Field Filtered Sample (Yes or No)		Analysis Requested Total Number of Containers								
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Soil, Chemical, Effluents, Gas)		Preservation Code		Special Instructions/Note:		
AY27716	11/26/18	13:46	G	Water										
AY27717	11/26/18	14:38	G	Water										
AY27718	11/26/18	15:42	G	Water										
AY27719	11/26/18	16:41	G	Water										
AY27720	11/27/18	08:54	G	Water										
AY27721	11/27/18	08:54	G	Water										
AY27722	11/27/18	10:06	G	Water										
AY27723	11/27/18	11:08	G	Water										
AY27724	11/27/18	12:11	G	Water										
AY27725	11/27/18	12:50	G	Water										
AY27726	11/27/18	13:34	G	Water										
AY27727	11/27/18	14:15	G	Water										
AY27728	11/27/18	15:07	G	Water										
<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)													Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Relinquished by: Laura Midkiff Date/Time: 11/30/2018 09:30 Company: APC													Method of Shipment:	
Relinquished by: Date/Time:													Received by:	
Relinquished by: Date/Time:													Received by:	
Relinquished by: Date/Time:													Received by:	
Custody Seals Intact: Δ Yes Δ No													Cooler Temperature(s) °C and Other Remarks: 18.1°C	



Chain of Custody Record

Client Information Alabama Power General Test Laboratory 744 County Rd 87 GSC #8 Callera State, Zip AL, 35040 Phone 205-664-6197(Tel) Email lmidkiff@southernco.com Project Name CCR Site Barry Gypsum 1187		Lab PM Whitmire, Cheyenne R E-Mail cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s) 400-56525-24537.1 Page Page 1 of 1 Job #	
Due Date Requested: TAT Requested (days): PO # WO # Project # 40007143 SOW#		Analysis Requested 9315_Ra226, 9320_Ra228, Ra228Ra228_GFP SM 4500 S04_F SM 4500 Cl_F SM 4500 F_C Perform MS/MSD (Yes or No)			
Sample Identification AY27716 AY27717 AY27718 AY27719 AY27720 AY27721 AY27722 AY27723 AY27724 AY27725 AY27726 AY27727 AY27728		Sample Date 11/26/18 11/26/18 11/26/18 11/26/18 11/27/18 11/27/18 11/27/18 11/27/18 11/27/18 11/27/18 11/27/18 11/27/18		Sample Time 13:46 14:38 15:42 16:41 08:54 08:54 10:06 11:08 12:11 12:50 13:34 14:15 15:07	
Sample Type (C=Comp, G=grab) G G G G G G G G G G G G G		Matrix (w=water, S=solid, O=oil, B=trace, A=air) Water Water Water Water Water Water Water Water Water Water Water Water Water		Preservation Code: M - Hexane A - HCL N - None B - NaOH O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Field Filtered Sample (Yes or No) X X X X X X X X X X X X X		Perform MS/MSD (Yes or No) X X X X X X X X X X X X X		Special Instructions/Note: MW-9 MW-10 MW-6 MW-4 MW-7 MW-7 DUP (Sample Duplicate) MW-8 MW-5 MW-3 EB-1 (Equipment Blank) MW-2 FB-1 (Field Blank) MW-1	
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: Relinquished by: Laura Midkiff Date/Time: 11/30/2018 08:30 Company: APC		Received by: Date/Time: 11/18/18 9:16 Company: SAFEN		Relinquished by: Date/Time: 12/14/18 Company:	
Relinquished by: Date/Time: 12/14/18 Company:		Relinquished by: Date/Time: 12/14/18 Company:		Relinquished by: Date/Time: 12/14/18 Company:	
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 350 128			



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162854-1
SDG Number: Barry Gypsum 1187

Login Number: 162854

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.1°C IR-7 - Rads
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162854-1
SDG Number: Barry Gypsum 1187

Login Number: 162854

List Number: 3

Creator: Johnson, Jeremy N

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.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5°C IR7 - wet chemistry
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 Barry

TestAmerica Job ID: 400-162854-1
 SDG: Barry Gypsum 1187

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	12-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA180023	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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: 400-162854-2

TestAmerica Sample Delivery Group: Barry Gypsum 1187

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

12/31/2018 1:11:06 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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

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Case Narrative

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

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

Job ID: 400-162854-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-162854-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-404516: The following samples were prepared at a reduced aliquot due to limited volume: AY27716 MW-9 (400-162854-1), AY27717 MW-10 (400-162854-2), AY27718 MW-6 (400-162854-3), AY27719 MW-4 (400-162854-4), AY27720 MW-7 (400-162854-5), AY27721 MW-7 DUP (400-162854-6), AY27722 MW-8 (400-162854-7), AY27723 MW-5 (400-162854-8), AY27724 MW-3 (400-162854-9), AY27725 EB-1 (400-162854-10), AY27726 MW-2 (400-162854-11), AY27726 MW-2 (400-162854-11[DU]), AY27727 FB-1 (400-162854-12) and AY27728 MW-1 (400-162854-13).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-404513: The following samples were prepared at a reduced aliquot due to limited volume: AY27716 MW-9 (400-162854-1), AY27717 MW-10 (400-162854-2), AY27718 MW-6 (400-162854-3), AY27719 MW-4 (400-162854-4), AY27720 MW-7 (400-162854-5), AY27721 MW-7 DUP (400-162854-6), AY27722 MW-8 (400-162854-7), AY27723 MW-5 (400-162854-8), AY27724 MW-3 (400-162854-9), AY27725 EB-1 (400-162854-10), AY27726 MW-2 (400-162854-11), AY27726 MW-2 (400-162854-11[DU]), AY27727 FB-1 (400-162854-12) and AY27728 MW-1 (400-162854-13).

Method Summary

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

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

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

Protocol References:

None = None

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

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

Laboratory References:

TAL SL = 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 Barry

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-162854-1	AY27716 MW-9	Water	11/26/18 13:46	12/01/18 15:15
400-162854-2	AY27717 MW-10	Water	11/26/18 14:38	12/01/18 15:15
400-162854-3	AY27718 MW-6	Water	11/26/18 15:42	12/01/18 15:15
400-162854-4	AY27719 MW-4	Water	11/26/18 16:41	12/01/18 15:15
400-162854-5	AY27720 MW-7	Water	11/27/18 08:54	12/01/18 15:15
400-162854-6	AY27721 MW-7 DUP	Water	11/27/18 08:54	12/01/18 15:15
400-162854-7	AY27722 MW-8	Water	11/27/18 10:06	12/01/18 15:15
400-162854-8	AY27723 MW-5	Water	11/27/18 11:08	12/01/18 15:15
400-162854-9	AY27724 MW-3	Water	11/27/18 12:11	12/01/18 15:15
400-162854-10	AY27725 EB-1	Water	11/27/18 12:50	12/01/18 15:15
400-162854-11	AY27726 MW-2	Water	11/27/18 13:34	12/01/18 15:15
400-162854-12	AY27727 FB-1	Water	11/27/18 14:15	12/01/18 15:15
400-162854-13	AY27728 MW-1	Water	11/27/18 15:07	12/01/18 15:15

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27716 MW-9

Lab Sample ID: 400-162854-1

Date Collected: 11/26/18 13:46

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.898		0.198	0.214	1.00	0.132	pCi/L	12/06/18 18:40	12/28/18 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					12/06/18 18:40	12/28/18 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	0.823		0.346	0.354	1.00	0.488	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	84.9		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.72		0.399	0.414	5.00	0.488	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27717 MW-10

Lab Sample ID: 400-162854-2

Date Collected: 11/26/18 14:38

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.556		0.163	0.170	1.00	0.136	pCi/L	12/06/18 18:40	12/28/18 09:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					12/06/18 18:40	12/28/18 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	0.482		0.311	0.314	1.00	0.476	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	83.7		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.04		0.351	0.357	5.00	0.476	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27718 MW-6

Lab Sample ID: 400-162854-3

Date Collected: 11/26/18 15:42

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.388		0.136	0.141	1.00	0.126	pCi/L	12/06/18 18:40	12/28/18 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					12/06/18 18:40	12/28/18 09:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.426	U	0.324	0.326	1.00	0.510	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	85.6		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.815		0.351	0.355	5.00	0.510	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27719 MW-4

Lab Sample ID: 400-162854-4

Date Collected: 11/26/18 16:41

Matrix: Water

Date Received: 12/01/18 15:15

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		0.119	0.121	1.00	0.143	pCi/L	12/06/18 18:40	12/28/18 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 18:40	12/28/18 09:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.627		0.315	0.320	1.00	0.463	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	85.2		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.863		0.337	0.342	5.00	0.463	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27720 MW-7

Lab Sample ID: 400-162854-5

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

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		0.0977	0.0993	1.00	0.103	pCi/L	12/06/18 18:40	12/28/18 09:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					12/06/18 18:40	12/28/18 09:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0858	U	0.239	0.239	1.00	0.449	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	86.0		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.109	U	0.258	0.259	5.00	0.449	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27721 MW-7 DUP

Lab Sample ID: 400-162854-6

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0937	U	0.0796	0.0800	1.00	0.116	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.262	0.263	1.00	0.416	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	85.6		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.395	U	0.274	0.275	5.00	0.416	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27722 MW-8

Lab Sample ID: 400-162854-7

Date Collected: 11/27/18 10:06

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.334		0.126	0.129	1.00	0.126	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.357	U	0.299	0.300	1.00	0.475	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	86.7		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.691		0.324	0.327	5.00	0.475	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27723 MW-5

Lab Sample ID: 400-162854-8

Date Collected: 11/27/18 11:08

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.232		0.107	0.109	1.00	0.114	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.314	0.316	1.00	0.501	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	86.4		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.611		0.332	0.334	5.00	0.501	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27724 MW-3
Date Collected: 11/27/18 12:11
Date Received: 12/01/18 15:15

Lab Sample ID: 400-162854-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.375		0.134	0.138	1.00	0.134	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0185	U	0.259	0.259	1.00	0.469	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	87.5		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.357	U	0.292	0.293	5.00	0.469	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27725 EB-1

Lab Sample ID: 400-162854-10

Date Collected: 11/27/18 12:50

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00185	U	0.0583	0.0583	1.00	0.123	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.503	U	0.340	0.343	1.00	0.529	pCi/L	12/06/18 19:14	12/18/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					12/06/18 19:14	12/18/18 10:53	1
Y Carrier	84.5		40 - 110					12/06/18 19:14	12/18/18 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.505	U	0.345	0.348	5.00	0.529	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27726 MW-2

Lab Sample ID: 400-162854-11

Date Collected: 11/27/18 13:34

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.613		0.161	0.171	1.00	0.129	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0232	U	0.284	0.284	1.00	0.502	pCi/L	12/06/18 19:14	12/18/18 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 19:14	12/18/18 10:54	1
Y Carrier	86.0		40 - 110					12/06/18 19:14	12/18/18 10:54	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	0.636		0.326	0.332	5.00	0.502	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27727 FB-1

Lab Sample ID: 400-162854-12

Date Collected: 11/27/18 14:15

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00562	U	0.0591	0.0591	1.00	0.128	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.313	U	0.265	0.266	1.00	0.420	pCi/L	12/06/18 19:14	12/18/18 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					12/06/18 19:14	12/18/18 10:54	1
Y Carrier	86.0		40 - 110					12/06/18 19:14	12/18/18 10:54	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	0.307	U	0.272	0.272	5.00	0.420	pCi/L		12/29/18 15:37	1

Client Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27728 MW-1

Lab Sample ID: 400-162854-13

Date Collected: 11/27/18 15:07

Matrix: Water

Date Received: 12/01/18 15:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.678		0.170	0.181	1.00	0.128	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.696		0.320	0.326	1.00	0.453	pCi/L	12/06/18 19:14	12/18/18 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					12/06/18 19:14	12/18/18 10:54	1
Y Carrier	86.0		40 - 110					12/06/18 19:14	12/18/18 10:54	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	1.37		0.362	0.373	5.00	0.453	pCi/L		12/29/18 15:37	1

Definitions/Glossary

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

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

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 Barry

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

Client Sample ID: AY27716 MW-9

Lab Sample ID: 400-162854-1

Date Collected: 11/26/18 13:46

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407777	12/28/18 09:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27717 MW-10

Lab Sample ID: 400-162854-2

Date Collected: 11/26/18 14:38

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407777	12/28/18 09:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27718 MW-6

Lab Sample ID: 400-162854-3

Date Collected: 11/26/18 15:42

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407777	12/28/18 09:41	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27719 MW-4

Lab Sample ID: 400-162854-4

Date Collected: 11/26/18 16:41

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407777	12/28/18 09:41	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Client Sample ID: AY27720 MW-7

Lab Sample ID: 400-162854-5

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27721 MW-7 DUP

Lab Sample ID: 400-162854-6

Date Collected: 11/27/18 08:54

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27722 MW-8

Lab Sample ID: 400-162854-7

Date Collected: 11/27/18 10:06

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27723 MW-5

Lab Sample ID: 400-162854-8

Date Collected: 11/27/18 11:08

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

Client Sample ID: AY27724 MW-3

Lab Sample ID: 400-162854-9

Date Collected: 11/27/18 12:11

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27725 EB-1

Lab Sample ID: 400-162854-10

Date Collected: 11/27/18 12:50

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27726 MW-2

Lab Sample ID: 400-162854-11

Date Collected: 11/27/18 13:34

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Client Sample ID: AY27727 FB-1

Lab Sample ID: 400-162854-12

Date Collected: 11/27/18 14:15

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

Client Sample ID: AY27728 MW-1

Lab Sample ID: 400-162854-13

Date Collected: 11/27/18 15:07

Matrix: Water

Date Received: 12/01/18 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404513	12/06/18 18:40	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 09:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404516	12/06/18 19:14	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 10:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	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 Barry

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Rad

Prep Batch: 404513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-1	AY27716 MW-9	Total/NA	Water	PrecSep-21	
400-162854-2	AY27717 MW-10	Total/NA	Water	PrecSep-21	
400-162854-3	AY27718 MW-6	Total/NA	Water	PrecSep-21	
400-162854-4	AY27719 MW-4	Total/NA	Water	PrecSep-21	
400-162854-5	AY27720 MW-7	Total/NA	Water	PrecSep-21	
400-162854-6	AY27721 MW-7 DUP	Total/NA	Water	PrecSep-21	
400-162854-7	AY27722 MW-8	Total/NA	Water	PrecSep-21	
400-162854-8	AY27723 MW-5	Total/NA	Water	PrecSep-21	
400-162854-9	AY27724 MW-3	Total/NA	Water	PrecSep-21	
400-162854-10	AY27725 EB-1	Total/NA	Water	PrecSep-21	
400-162854-11	AY27726 MW-2	Total/NA	Water	PrecSep-21	
400-162854-12	AY27727 FB-1	Total/NA	Water	PrecSep-21	
400-162854-13	AY27728 MW-1	Total/NA	Water	PrecSep-21	
MB 160-404513/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-404513/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-162854-11 DU	AY27726 MW-2	Total/NA	Water	PrecSep-21	

Prep Batch: 404516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162854-1	AY27716 MW-9	Total/NA	Water	PrecSep_0	
400-162854-2	AY27717 MW-10	Total/NA	Water	PrecSep_0	
400-162854-3	AY27718 MW-6	Total/NA	Water	PrecSep_0	
400-162854-4	AY27719 MW-4	Total/NA	Water	PrecSep_0	
400-162854-5	AY27720 MW-7	Total/NA	Water	PrecSep_0	
400-162854-6	AY27721 MW-7 DUP	Total/NA	Water	PrecSep_0	
400-162854-7	AY27722 MW-8	Total/NA	Water	PrecSep_0	
400-162854-8	AY27723 MW-5	Total/NA	Water	PrecSep_0	
400-162854-9	AY27724 MW-3	Total/NA	Water	PrecSep_0	
400-162854-10	AY27725 EB-1	Total/NA	Water	PrecSep_0	
400-162854-11	AY27726 MW-2	Total/NA	Water	PrecSep_0	
400-162854-12	AY27727 FB-1	Total/NA	Water	PrecSep_0	
400-162854-13	AY27728 MW-1	Total/NA	Water	PrecSep_0	
MB 160-404516/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-404516/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-162854-11 DU	AY27726 MW-2	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-404513/22-A
Matrix: Water
Analysis Batch: 407767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 404513

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03084	U	0.0478	0.0479	1.00	0.123	pCi/L	12/06/18 18:40	12/28/18 09:44	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					12/06/18 18:40	12/28/18 09:44	1

Lab Sample ID: LCS 160-404513/1-A
Matrix: Water
Analysis Batch: 407777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 404513

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	14.63		1.52	1.00	0.127	pCi/L	97	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.3		40 - 110						

Lab Sample ID: 400-162854-11 DU
Matrix: Water
Analysis Batch: 407767

Client Sample ID: AY27726 MW-2
Prep Type: Total/NA
Prep Batch: 404513

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.613		0.3682		0.132	1.00	0.115	pCi/L	0.81	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	98.2		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-404516/22-A
Matrix: Water
Analysis Batch: 406245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 404516

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02165	U	0.263	0.263	1.00	0.470	pCi/L	12/06/18 19:14	12/18/18 10:55	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					12/06/18 19:14	12/18/18 10:55	1
Y Carrier	84.5		40 - 110					12/06/18 19:14	12/18/18 10:55	1

QC Sample Results

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

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

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

Lab Sample ID: LCS 160-404516/1-A
Matrix: Water
Analysis Batch: 406293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 404516

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.2	12.11		1.41	1.00	0.523	pCi/L	100	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	83.4		40 - 110

Lab Sample ID: 400-162854-11 DU
Matrix: Water
Analysis Batch: 406293

Client Sample ID: AY27726 MW-2
Prep Type: Total/NA
Prep Batch: 404516

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0232	U	-0.02114	U	0.215	1.00	0.398	pCi/L	0.09	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	98.2		40 - 110
Y Carrier	86.4		40 - 110


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

Lab Sample ID: 400-162854-11 DU
Matrix: Water
Analysis Batch: 408243

Client Sample ID: AY27726 MW-2
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	0.636		0.3471	U	0.252	5.00	0.398	pCi/L	0.50	

Chain of Custody Record

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6197 (Tel) Email: lmidkiff@southernco.com Project Name: CCR Site: Barry Gypsum 1187		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007143 SSOW#:		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier (Tracking No(s)): COC No: 400-56525-24537.1 Page: 1 of 1 Job #: 102054							
Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Total Number of Containers: 2		Analysis Requested 9315 Ra226, 9320 Ra228, Ra226Ra228 GPPC  400-162854 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:		Special Instructions/Note: MW-9 MW-10 MW-6 MW-4 MW-7 MW-7 DUP (Sample Duplicate) MW-8 MW-5 MW-3 EB-1 (Equipment Blank) MW-2 FB-1 (Field Blank) MW-1							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F.C	SM 4500 Cl.E	SM 4500 SO4.E	N	D	Special Instructions/Note
AY27716	11/26/18	13:46	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27717	11/26/18	14:38	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27718	11/26/18	15:42	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27719	11/26/18	16:41	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27720	11/27/18	08:54	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27721	11/27/18	08:54	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27722	11/27/18	10:06	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27723	11/27/18	11:08	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27724	11/27/18	12:11	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27725	11/27/18	12:50	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27726	11/27/18	13:34	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27727	11/27/18	14:15	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
AY27728	11/27/18	15:07	G	Water		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	X	X	
<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: Laura Midkiff Date/Time: 11/30/2018 09:30 Company: APC													
Relinquished by: Date/Time: Company:													
Relinquished by: Date/Time: Company:													
Custody Seals Intact: Δ Yes Δ No Custody Seal No.: 18107													
Special Instructions/OC Requirements: <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Method of Shipment: Date/Time: 12/18/18 15:55 Company:													



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162854-2
SDG Number: Barry Gypsum 1187

Login Number: 162854

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.1°C IR-7 - Rads
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162854-2
SDG Number: Barry Gypsum 1187

Login Number: 162854
List Number: 2
Creator: Dupart, Lacey S

List Source: TestAmerica St. Louis
List Creation: 12/04/18 11:02 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
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 Barry

TestAmerica Job ID: 400-162854-2
 SDG: Barry Gypsum 1187

Laboratory: TestAmerica Pensacola

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

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

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	06-30-19
ANAB	DoD ELAP		L2305	04-06-19
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-19
Illinois	NELAP	5	200023	11-30-18 *
Iowa	State Program	7	373	12-01-18 *
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	90125	12-31-18 *
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA180017	12-31-18 *
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-162854-2
SDG: Barry Gypsum 1187

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
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-19 *
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-12	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-1	1/23/2018 12:10	51.1	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:10	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:10	0.31	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:10	159.1	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:10	4.8	pH	pH
BY-GSA-MW-1	1/23/2018 12:10	20.85	C	Temperature
BY-GSA-MW-1	1/23/2018 12:10	0.44	NTU	Turbidity
BY-GSA-MW-1	1/23/2018 12:15	51.4	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:15	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:15	0.25	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:15	159.5	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:15	4.79	pH	pH
BY-GSA-MW-1	1/23/2018 12:15	21.06	C	Temperature
BY-GSA-MW-1	1/23/2018 12:15	0.43	NTU	Turbidity
BY-GSA-MW-1	1/23/2018 12:20	51.5	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:20	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:20	0.2	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:20	159.4	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:20	4.8	pH	pH
BY-GSA-MW-1	1/23/2018 12:20	21.06	C	Temperature
BY-GSA-MW-1	1/23/2018 12:20	0.44	NTU	Turbidity
BY-GSA-MW-1	1/23/2018 12:25	51.7	uS/cm	Conductivity
BY-GSA-MW-1	1/23/2018 12:25	15.98	ft	Depth to Water Detail
BY-GSA-MW-1	1/23/2018 12:25	0.19	mg/L	DO
BY-GSA-MW-1	1/23/2018 12:25	161.6	mv	Oxidation Reduction Potention
BY-GSA-MW-1	1/23/2018 12:25	4.79	pH	pH
BY-GSA-MW-1	1/23/2018 12:25	20.93	C	Temperature
BY-GSA-MW-1	1/23/2018 12:25	0.36	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-2	1/23/2018 11:24	68.9	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:24	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:24	6.63	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:24	169.5	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:24	4.64	pH	pH
BY-GSA-MW-2	1/23/2018 11:24	20.3	C	Temperature
BY-GSA-MW-2	1/23/2018 11:24	1.25	NTU	Turbidity
BY-GSA-MW-2	1/23/2018 11:29	66.3	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:29	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:29	6.51	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:29	167.3	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:29	4.65	pH	pH
BY-GSA-MW-2	1/23/2018 11:29	20.26	C	Temperature
BY-GSA-MW-2	1/23/2018 11:29	1.5	NTU	Turbidity
BY-GSA-MW-2	1/23/2018 11:34	66.3	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:34	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:34	6.51	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:34	166.6	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:34	4.65	pH	pH
BY-GSA-MW-2	1/23/2018 11:34	20.19	C	Temperature
BY-GSA-MW-2	1/23/2018 11:34	1.24	NTU	Turbidity
BY-GSA-MW-2	1/23/2018 11:39	63.9	uS/cm	Conductivity
BY-GSA-MW-2	1/23/2018 11:39	15.41	ft	Depth to Water Detail
BY-GSA-MW-2	1/23/2018 11:39	6.47	mg/L	DO
BY-GSA-MW-2	1/23/2018 11:39	166.6	mv	Oxidation Reduction Potention
BY-GSA-MW-2	1/23/2018 11:39	4.67	pH	pH
BY-GSA-MW-2	1/23/2018 11:39	20.18	C	Temperature
BY-GSA-MW-2	1/23/2018 11:39	0.63	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-3	1/23/2018 10:31	46.5	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:31	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:31	5.86	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:31	159.8	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:31	4.89	pH	pH
BY-GSA-MW-3	1/23/2018 10:31	20.62	C	Temperature
BY-GSA-MW-3	1/23/2018 10:31	0.71	NTU	Turbidity
BY-GSA-MW-3	1/23/2018 10:36	46.3	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:36	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:36	5.81	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:36	155.7	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:36	4.91	pH	pH
BY-GSA-MW-3	1/23/2018 10:36	20.62	C	Temperature
BY-GSA-MW-3	1/23/2018 10:36	0.36	NTU	Turbidity
BY-GSA-MW-3	1/23/2018 10:41	46	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:41	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:41	5.77	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:41	153.7	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:41	4.9	pH	pH
BY-GSA-MW-3	1/23/2018 10:41	20.62	C	Temperature
BY-GSA-MW-3	1/23/2018 10:41	0.16	NTU	Turbidity
BY-GSA-MW-3	1/23/2018 10:46	46	uS/cm	Conductivity
BY-GSA-MW-3	1/23/2018 10:46	17.91	ft	Depth to Water Detail
BY-GSA-MW-3	1/23/2018 10:46	5.76	mg/L	DO
BY-GSA-MW-3	1/23/2018 10:46	153.3	mv	Oxidation Reduction Potention
BY-GSA-MW-3	1/23/2018 10:46	4.91	pH	pH
BY-GSA-MW-3	1/23/2018 10:46	20.61	C	Temperature
BY-GSA-MW-3	1/23/2018 10:46	0.13	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-4	1/23/2018 9:27	46.7	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:27	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:27	6.69	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:27	163.1	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:27	4.87	pH	pH
BY-GSA-MW-4	1/23/2018 9:27	20.21	C	Temperature
BY-GSA-MW-4	1/23/2018 9:27	4.76	NTU	Turbidity
BY-GSA-MW-4	1/23/2018 9:32	46.2	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:32	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:32	6.5	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:32	163.2	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:32	4.85	pH	pH
BY-GSA-MW-4	1/23/2018 9:32	20.38	C	Temperature
BY-GSA-MW-4	1/23/2018 9:32	2.8	NTU	Turbidity
BY-GSA-MW-4	1/23/2018 9:37	45.4	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:37	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:37	6.35	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:37	163.4	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:37	4.84	pH	pH
BY-GSA-MW-4	1/23/2018 9:37	20.43	C	Temperature
BY-GSA-MW-4	1/23/2018 9:37	2.36	NTU	Turbidity
BY-GSA-MW-4	1/23/2018 9:42	44.7	uS/cm	Conductivity
BY-GSA-MW-4	1/23/2018 9:42	24.07	ft	Depth to Water Detail
BY-GSA-MW-4	1/23/2018 9:42	6.16	mg/L	DO
BY-GSA-MW-4	1/23/2018 9:42	162.6	mv	Oxidation Reduction Potention
BY-GSA-MW-4	1/23/2018 9:42	4.85	pH	pH
BY-GSA-MW-4	1/23/2018 9:42	20.48	C	Temperature
BY-GSA-MW-4	1/23/2018 9:42	1.31	NTU	Turbidity

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Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-5	1/24/2018 9:22	44.6	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:22	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:22	6.09	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:22	146.8	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:22	5.3	pH	pH
BY-GSA-MW-5	1/24/2018 9:22	19.8	C	Temperature
BY-GSA-MW-5	1/24/2018 9:22	0.83	NTU	Turbidity
BY-GSA-MW-5	1/24/2018 9:27	44.6	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:27	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:27	6.07	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:27	148.4	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:27	4.92	pH	pH
BY-GSA-MW-5	1/24/2018 9:27	19.86	C	Temperature
BY-GSA-MW-5	1/24/2018 9:27	0.72	NTU	Turbidity
BY-GSA-MW-5	1/24/2018 9:32	44.3	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:32	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:32	6.01	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:32	148.3	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:32	4.88	pH	pH
BY-GSA-MW-5	1/24/2018 9:32	19.82	C	Temperature
BY-GSA-MW-5	1/24/2018 9:32	0.55	NTU	Turbidity
BY-GSA-MW-5	1/24/2018 9:37	44.4	uS/cm	Conductivity
BY-GSA-MW-5	1/24/2018 9:37	30.39	ft	Depth to Water Detail
BY-GSA-MW-5	1/24/2018 9:37	6.02	mg/L	DO
BY-GSA-MW-5	1/24/2018 9:37	146.9	mv	Oxidation Reduction Potention
BY-GSA-MW-5	1/24/2018 9:37	4.86	pH	pH
BY-GSA-MW-5	1/24/2018 9:37	19.86	C	Temperature
BY-GSA-MW-5	1/24/2018 9:37	0.39	NTU	Turbidity

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Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-6	1/22/2018 14:51	52.9	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 14:51	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 14:51	6.19	mg/L	DO
BY-GSA-MW-6	1/22/2018 14:51	149.8	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 14:51	5.51	pH	pH
BY-GSA-MW-6	1/22/2018 14:51	22.04	C	Temperature
BY-GSA-MW-6	1/22/2018 14:51	0.99	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 14:56	54.7	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 14:56	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 14:56	6.09	mg/L	DO
BY-GSA-MW-6	1/22/2018 14:56	142.6	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 14:56	5.56	pH	pH
BY-GSA-MW-6	1/22/2018 14:56	22.09	C	Temperature
BY-GSA-MW-6	1/22/2018 14:56	1.17	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 15:01	56.3	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 15:01	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 15:01	6.04	mg/L	DO
BY-GSA-MW-6	1/22/2018 15:01	138.1	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 15:01	5.62	pH	pH
BY-GSA-MW-6	1/22/2018 15:01	22.13	C	Temperature
BY-GSA-MW-6	1/22/2018 15:01	0.88	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 15:06	58.7	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 15:06	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 15:06	6	mg/L	DO
BY-GSA-MW-6	1/22/2018 15:06	134.7	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 15:06	5.68	pH	pH
BY-GSA-MW-6	1/22/2018 15:06	22.18	C	Temperature
BY-GSA-MW-6	1/22/2018 15:06	0.53	NTU	Turbidity
BY-GSA-MW-6	1/22/2018 15:11	56.2	uS/cm	Conductivity
BY-GSA-MW-6	1/22/2018 15:11	18.14	ft	Depth to Water Detail
BY-GSA-MW-6	1/22/2018 15:11	5.98	mg/L	DO
BY-GSA-MW-6	1/22/2018 15:11	134.6	mv	Oxidation Reduction Potention
BY-GSA-MW-6	1/22/2018 15:11	5.66	pH	pH
BY-GSA-MW-6	1/22/2018 15:11	22.18	C	Temperature
BY-GSA-MW-6	1/22/2018 15:11	0.46	NTU	Turbidity

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Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-7	1/22/2018 13:57	38	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 13:57	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 13:57	4.44	mg/L	DO
BY-GSA-MW-7	1/22/2018 13:57	161.9	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 13:57	5.13	pH	pH
BY-GSA-MW-7	1/22/2018 13:57	20.97	C	Temperature
BY-GSA-MW-7	1/22/2018 13:57	2.36	NTU	Turbidity
BY-GSA-MW-7	1/22/2018 14:02	37.8	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 14:02	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 14:02	4.38	mg/L	DO
BY-GSA-MW-7	1/22/2018 14:02	162.8	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 14:02	5.06	pH	pH
BY-GSA-MW-7	1/22/2018 14:02	20.95	C	Temperature
BY-GSA-MW-7	1/22/2018 14:02	2.71	NTU	Turbidity
BY-GSA-MW-7	1/22/2018 14:07	38.1	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 14:07	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 14:07	4.34	mg/L	DO
BY-GSA-MW-7	1/22/2018 14:07	161.5	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 14:07	5.06	pH	pH
BY-GSA-MW-7	1/22/2018 14:07	20.92	C	Temperature
BY-GSA-MW-7	1/22/2018 14:07	1.28	NTU	Turbidity
BY-GSA-MW-7	1/22/2018 14:12	38.4	uS/cm	Conductivity
BY-GSA-MW-7	1/22/2018 14:12	17.1	ft	Depth to Water Detail
BY-GSA-MW-7	1/22/2018 14:12	4.34	mg/L	DO
BY-GSA-MW-7	1/22/2018 14:12	159.8	mv	Oxidation Reduction Potention
BY-GSA-MW-7	1/22/2018 14:12	5.06	pH	pH
BY-GSA-MW-7	1/22/2018 14:12	20.89	C	Temperature
BY-GSA-MW-7	1/22/2018 14:12	1.42	NTU	Turbidity

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Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-8	1/24/2018 10:21	41.9	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:21	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:21	1.21	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:21	139.5	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:21	5.03	pH	pH
BY-GSA-MW-8	1/24/2018 10:21	19.64	C	Temperature
BY-GSA-MW-8	1/24/2018 10:21	22.2	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:26	41.6	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:26	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:26	1.1	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:26	135.8	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:26	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:26	19.76	C	Temperature
BY-GSA-MW-8	1/24/2018 10:26	13.5	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:31	41.6	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:31	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:31	1.1	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:31	133.5	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:31	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:31	19.72	C	Temperature
BY-GSA-MW-8	1/24/2018 10:31	7.8	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:36	41.5	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:36	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:36	1.03	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:36	132.5	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:36	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:36	19.72	C	Temperature
BY-GSA-MW-8	1/24/2018 10:36	5.87	NTU	Turbidity
BY-GSA-MW-8	1/24/2018 10:41	41.6	uS/cm	Conductivity
BY-GSA-MW-8	1/24/2018 10:41	30.77	ft	Depth to Water Detail
BY-GSA-MW-8	1/24/2018 10:41	1.06	mg/L	DO
BY-GSA-MW-8	1/24/2018 10:41	132.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	1/24/2018 10:41	5.02	pH	pH
BY-GSA-MW-8	1/24/2018 10:41	19.86	C	Temperature
BY-GSA-MW-8	1/24/2018 10:41	4.87	NTU	Turbidity

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Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-9	1/23/2018 13:21	60.4	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:21	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:21	1.57	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:21	181.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:21	4.52	pH	pH
BY-GSA-MW-9	1/23/2018 13:21	21.56	C	Temperature
BY-GSA-MW-9	1/23/2018 13:21	0.41	NTU	Turbidity
BY-GSA-MW-9	1/23/2018 13:26	60.4	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:26	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:26	1.45	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:26	176.9	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:26	4.53	pH	pH
BY-GSA-MW-9	1/23/2018 13:26	21.45	C	Temperature
BY-GSA-MW-9	1/23/2018 13:26	0.1	NTU	Turbidity
BY-GSA-MW-9	1/23/2018 13:31	60.3	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:31	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:31	1.42	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:31	172.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:31	4.53	pH	pH
BY-GSA-MW-9	1/23/2018 13:31	21.36	C	Temperature
BY-GSA-MW-9	1/23/2018 13:31	0.37	NTU	Turbidity
BY-GSA-MW-9	1/23/2018 13:36	59.7	uS/cm	Conductivity
BY-GSA-MW-9	1/23/2018 13:36	9.68	ft	Depth to Water Detail
BY-GSA-MW-9	1/23/2018 13:36	1.4	mg/L	DO
BY-GSA-MW-9	1/23/2018 13:36	170.2	mv	Oxidation Reduction Potention
BY-GSA-MW-9	1/23/2018 13:36	4.53	pH	pH
BY-GSA-MW-9	1/23/2018 13:36	21.35	C	Temperature
BY-GSA-MW-9	1/23/2018 13:36	0.12	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-10	1/23/2018 14:12	61.7	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:12	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:12	5.34	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:12	170.5	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:12	4.61	pH	pH
BY-GSA-MW-10	1/23/2018 14:12	20.84	C	Temperature
BY-GSA-MW-10	1/23/2018 14:12	0.11	NTU	Turbidity
BY-GSA-MW-10	1/23/2018 14:17	60.9	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:17	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:17	5.21	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:17	173.2	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:17	4.61	pH	pH
BY-GSA-MW-10	1/23/2018 14:17	20.89	C	Temperature
BY-GSA-MW-10	1/23/2018 14:17	3.96	NTU	Turbidity
BY-GSA-MW-10	1/23/2018 14:22	59.6	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:22	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:22	5.12	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:22	177.9	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:22	4.6	pH	pH
BY-GSA-MW-10	1/23/2018 14:22	21.06	C	Temperature
BY-GSA-MW-10	1/23/2018 14:22	1.73	NTU	Turbidity
BY-GSA-MW-10	1/23/2018 14:27	59.3	uS/cm	Conductivity
BY-GSA-MW-10	1/23/2018 14:27	13.52	ft	Depth to Water Detail
BY-GSA-MW-10	1/23/2018 14:27	5.12	mg/L	DO
BY-GSA-MW-10	1/23/2018 14:27	182	mv	Oxidation Reduction Potention
BY-GSA-MW-10	1/23/2018 14:27	4.6	pH	pH
BY-GSA-MW-10	1/23/2018 14:27	21.14	C	Temperature
BY-GSA-MW-10	1/23/2018 14:27	0.55	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-1	5/2/2018 9:31	62.6	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:31	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:31	0.32	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:31	166.4	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:31	4.61	pH	pH
BY-GSA-MW-1	5/2/2018 9:31	20.44	C	Temperature
BY-GSA-MW-1	5/2/2018 9:31	9.67	NTU	Turbidity
BY-GSA-MW-1	5/2/2018 9:36	63.9	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:36	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:36	0.28	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:36	173.6	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:36	4.59	pH	pH
BY-GSA-MW-1	5/2/2018 9:36	20.4	C	Temperature
BY-GSA-MW-1	5/2/2018 9:36	5.36	NTU	Turbidity
BY-GSA-MW-1	5/2/2018 9:41	65.5	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:41	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:41	0.26	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:41	176.2	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:41	4.63	pH	pH
BY-GSA-MW-1	5/2/2018 9:41	20.44	C	Temperature
BY-GSA-MW-1	5/2/2018 9:41	3.73	NTU	Turbidity
BY-GSA-MW-1	5/2/2018 9:46	64.7	uS/cm	Conductivity
BY-GSA-MW-1	5/2/2018 9:46	13.88	ft	Depth to Water Detail
BY-GSA-MW-1	5/2/2018 9:46	0.28	mg/L	DO
BY-GSA-MW-1	5/2/2018 9:46	176.9	mv	Oxidation Reduction Potention
BY-GSA-MW-1	5/2/2018 9:46	4.62	pH	pH
BY-GSA-MW-1	5/2/2018 9:46	20.46	C	Temperature
BY-GSA-MW-1	5/2/2018 9:46	1.9	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-2	5/1/2018 15:34	62.7	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:34	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:34	7.79	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:34	174.1	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:34	4.58	pH	pH
BY-GSA-MW-2	5/1/2018 15:34	20.69	C	Temperature
BY-GSA-MW-2	5/1/2018 15:34	0.25	NTU	Turbidity
BY-GSA-MW-2	5/1/2018 15:39	61.8	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:39	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:39	7.63	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:39	168.8	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:39	4.6	pH	pH
BY-GSA-MW-2	5/1/2018 15:39	20.88	C	Temperature
BY-GSA-MW-2	5/1/2018 15:39	0.2	NTU	Turbidity
BY-GSA-MW-2	5/1/2018 15:44	60.7	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:44	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:44	7.64	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:44	168.1	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:44	4.62	pH	pH
BY-GSA-MW-2	5/1/2018 15:44	20.74	C	Temperature
BY-GSA-MW-2	5/1/2018 15:44	0.15	NTU	Turbidity
BY-GSA-MW-2	5/1/2018 15:49	60.5	uS/cm	Conductivity
BY-GSA-MW-2	5/1/2018 15:49	13.27	ft	Depth to Water Detail
BY-GSA-MW-2	5/1/2018 15:49	7.61	mg/L	DO
BY-GSA-MW-2	5/1/2018 15:49	168.8	mv	Oxidation Reduction Potention
BY-GSA-MW-2	5/1/2018 15:49	4.61	pH	pH
BY-GSA-MW-2	5/1/2018 15:49	20.88	C	Temperature
BY-GSA-MW-2	5/1/2018 15:49	0.14	NTU	Turbidity

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Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-3	5/1/2018 14:31	46.9	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:31	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:31	6.24	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:31	160.9	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:31	4.82	pH	pH
BY-GSA-MW-3	5/1/2018 14:31	20.97	C	Temperature
BY-GSA-MW-3	5/1/2018 14:31	0.47	NTU	Turbidity
BY-GSA-MW-3	5/1/2018 14:36	47.4	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:36	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:36	6.1	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:36	156.4	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:36	4.84	pH	pH
BY-GSA-MW-3	5/1/2018 14:36	20.9	C	Temperature
BY-GSA-MW-3	5/1/2018 14:36	0.36	NTU	Turbidity
BY-GSA-MW-3	5/1/2018 14:41	47.1	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:41	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:41	6.05	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:41	154	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:41	4.87	pH	pH
BY-GSA-MW-3	5/1/2018 14:41	20.88	C	Temperature
BY-GSA-MW-3	5/1/2018 14:41	0.25	NTU	Turbidity
BY-GSA-MW-3	5/1/2018 14:46	46.6	uS/cm	Conductivity
BY-GSA-MW-3	5/1/2018 14:46	16.04	ft	Depth to Water Detail
BY-GSA-MW-3	5/1/2018 14:46	6.09	mg/L	DO
BY-GSA-MW-3	5/1/2018 14:46	152.7	mv	Oxidation Reduction Potention
BY-GSA-MW-3	5/1/2018 14:46	4.87	pH	pH
BY-GSA-MW-3	5/1/2018 14:46	20.94	C	Temperature
BY-GSA-MW-3	5/1/2018 14:46	0.13	NTU	Turbidity

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Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-4	5/1/2018 13:29	45.7	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:29	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:29	7.96	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:29	164.7	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:29	4.8	pH	pH
BY-GSA-MW-4	5/1/2018 13:29	21.44	C	Temperature
BY-GSA-MW-4	5/1/2018 13:29	3.44	NTU	Turbidity
BY-GSA-MW-4	5/1/2018 13:34	45.1	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:34	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:34	7.84	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:34	161	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:34	4.8	pH	pH
BY-GSA-MW-4	5/1/2018 13:34	21.46	C	Temperature
BY-GSA-MW-4	5/1/2018 13:34	2.06	NTU	Turbidity
BY-GSA-MW-4	5/1/2018 13:39	45.2	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:39	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:39	7.98	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:39	158.7	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:39	4.79	pH	pH
BY-GSA-MW-4	5/1/2018 13:39	21.28	C	Temperature
BY-GSA-MW-4	5/1/2018 13:39	0.8	NTU	Turbidity
BY-GSA-MW-4	5/1/2018 13:44	44.4	uS/cm	Conductivity
BY-GSA-MW-4	5/1/2018 13:44	22.13	ft	Depth to Water Detail
BY-GSA-MW-4	5/1/2018 13:44	7.85	mg/L	DO
BY-GSA-MW-4	5/1/2018 13:44	156.1	mv	Oxidation Reduction Potention
BY-GSA-MW-4	5/1/2018 13:44	4.8	pH	pH
BY-GSA-MW-4	5/1/2018 13:44	21.32	C	Temperature
BY-GSA-MW-4	5/1/2018 13:44	0.73	NTU	Turbidity

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WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-5	5/2/2018 10:29	42	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:29	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:29	5.8	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:29	157.9	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:29	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:29	21.92	C	Temperature
BY-GSA-MW-5	5/2/2018 10:29	0.69	NTU	Turbidity
BY-GSA-MW-5	5/2/2018 10:34	42.1	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:34	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:34	5.77	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:34	153.4	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:34	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:34	21.87	C	Temperature
BY-GSA-MW-5	5/2/2018 10:34	0.57	NTU	Turbidity
BY-GSA-MW-5	5/2/2018 10:39	42.3	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:39	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:39	5.74	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:39	151.2	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:39	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:39	21.91	C	Temperature
BY-GSA-MW-5	5/2/2018 10:39	0.32	NTU	Turbidity
BY-GSA-MW-5	5/2/2018 10:44	42.4	uS/cm	Conductivity
BY-GSA-MW-5	5/2/2018 10:44	27.99	ft	Depth to Water Detail
BY-GSA-MW-5	5/2/2018 10:44	5.75	mg/L	DO
BY-GSA-MW-5	5/2/2018 10:44	150.5	mv	Oxidation Reduction Potention
BY-GSA-MW-5	5/2/2018 10:44	4.87	pH	pH
BY-GSA-MW-5	5/2/2018 10:44	21.91	C	Temperature
BY-GSA-MW-5	5/2/2018 10:44	0.29	NTU	Turbidity

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WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-6	5/1/2018 12:30	61	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:30	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:30	7.13	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:30	149.1	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:30	5.6	pH	pH
BY-GSA-MW-6	5/1/2018 12:30	22.55	C	Temperature
BY-GSA-MW-6	5/1/2018 12:30	1.44	NTU	Turbidity
BY-GSA-MW-6	5/1/2018 12:35	62.4	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:35	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:35	7.22	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:35	143.5	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:35	5.65	pH	pH
BY-GSA-MW-6	5/1/2018 12:35	22.61	C	Temperature
BY-GSA-MW-6	5/1/2018 12:35	0.56	NTU	Turbidity
BY-GSA-MW-6	5/1/2018 12:40	63.7	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:40	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:40	7.12	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:40	141.8	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:40	5.69	pH	pH
BY-GSA-MW-6	5/1/2018 12:40	22.47	C	Temperature
BY-GSA-MW-6	5/1/2018 12:40	0.5	NTU	Turbidity
BY-GSA-MW-6	5/1/2018 12:45	63.4	uS/cm	Conductivity
BY-GSA-MW-6	5/1/2018 12:45	15.66	ft	Depth to Water Detail
BY-GSA-MW-6	5/1/2018 12:45	7	mg/L	DO
BY-GSA-MW-6	5/1/2018 12:45	139.4	mv	Oxidation Reduction Potention
BY-GSA-MW-6	5/1/2018 12:45	5.71	pH	pH
BY-GSA-MW-6	5/1/2018 12:45	22.48	C	Temperature
BY-GSA-MW-6	5/1/2018 12:45	0.35	NTU	Turbidity

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WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-7	5/1/2018 11:34	30.5	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:34	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:34	6.9	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:34	163.6	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:34	4.87	pH	pH
BY-GSA-MW-7	5/1/2018 11:34	21.48	C	Temperature
BY-GSA-MW-7	5/1/2018 11:34	1.3	NTU	Turbidity
BY-GSA-MW-7	5/1/2018 11:39	32.1	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:39	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:39	6.81	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:39	159.1	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:39	4.87	pH	pH
BY-GSA-MW-7	5/1/2018 11:39	21.46	C	Temperature
BY-GSA-MW-7	5/1/2018 11:39	0.96	NTU	Turbidity
BY-GSA-MW-7	5/1/2018 11:44	31.9	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:44	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:44	6.74	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:44	157.8	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:44	4.88	pH	pH
BY-GSA-MW-7	5/1/2018 11:44	21.45	C	Temperature
BY-GSA-MW-7	5/1/2018 11:44	0.55	NTU	Turbidity
BY-GSA-MW-7	5/1/2018 11:49	32.3	uS/cm	Conductivity
BY-GSA-MW-7	5/1/2018 11:49	14.56	ft	Depth to Water Detail
BY-GSA-MW-7	5/1/2018 11:49	6.55	mg/L	DO
BY-GSA-MW-7	5/1/2018 11:49	156.5	mv	Oxidation Reduction Potention
BY-GSA-MW-7	5/1/2018 11:49	4.89	pH	pH
BY-GSA-MW-7	5/1/2018 11:49	21.51	C	Temperature
BY-GSA-MW-7	5/1/2018 11:49	0.58	NTU	Turbidity

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WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-8	5/2/2018 11:21	41.2	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:21	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:21	1.07	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:21	143.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:21	4.96	pH	pH
BY-GSA-MW-8	5/2/2018 11:21	21.83	C	Temperature
BY-GSA-MW-8	5/2/2018 11:21	24	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:26	41.4	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:26	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:26	1.04	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:26	148.3	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:26	4.99	pH	pH
BY-GSA-MW-8	5/2/2018 11:26	21.86	C	Temperature
BY-GSA-MW-8	5/2/2018 11:26	12.4	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:31	41	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:31	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:31	1	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:31	143.1	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:31	4.98	pH	pH
BY-GSA-MW-8	5/2/2018 11:31	21.79	C	Temperature
BY-GSA-MW-8	5/2/2018 11:31	9.17	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:36	41	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:36	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:36	0.98	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:36	142.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:36	4.99	pH	pH
BY-GSA-MW-8	5/2/2018 11:36	21.82	C	Temperature
BY-GSA-MW-8	5/2/2018 11:36	6.5	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:41	41.1	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:41	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:41	0.99	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:41	141.1	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:41	4.97	pH	pH
BY-GSA-MW-8	5/2/2018 11:41	21.79	C	Temperature
BY-GSA-MW-8	5/2/2018 11:41	5.09	NTU	Turbidity
BY-GSA-MW-8	5/2/2018 11:46	41.1	uS/cm	Conductivity
BY-GSA-MW-8	5/2/2018 11:46	28.13	ft	Depth to Water Detail
BY-GSA-MW-8	5/2/2018 11:46	0.98	mg/L	DO
BY-GSA-MW-8	5/2/2018 11:46	139.4	mv	Oxidation Reduction Potention
BY-GSA-MW-8	5/2/2018 11:46	4.99	pH	pH
BY-GSA-MW-8	5/2/2018 11:46	21.82	C	Temperature
BY-GSA-MW-8	5/2/2018 11:46	4.91	NTU	Turbidity

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WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-9	5/1/2018 9:33	60.7	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:33	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:33	2.09	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:33	176.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:33	4.43	pH	pH
BY-GSA-MW-9	5/1/2018 9:33	21.49	C	Temperature
BY-GSA-MW-9	5/1/2018 9:33	0.18	NTU	Turbidity
BY-GSA-MW-9	5/1/2018 9:38	60.7	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:38	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:38	2.06	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:38	170.8	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:38	4.46	pH	pH
BY-GSA-MW-9	5/1/2018 9:38	21.52	C	Temperature
BY-GSA-MW-9	5/1/2018 9:38	0.31	NTU	Turbidity
BY-GSA-MW-9	5/1/2018 9:43	60.2	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:43	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:43	2.1	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:43	168.3	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:43	4.48	pH	pH
BY-GSA-MW-9	5/1/2018 9:43	21.51	C	Temperature
BY-GSA-MW-9	5/1/2018 9:43	0.64	NTU	Turbidity
BY-GSA-MW-9	5/1/2018 9:48	60	uS/cm	Conductivity
BY-GSA-MW-9	5/1/2018 9:48	7.23	ft	Depth to Water Detail
BY-GSA-MW-9	5/1/2018 9:48	2.03	mg/L	DO
BY-GSA-MW-9	5/1/2018 9:48	166.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	5/1/2018 9:48	4.46	pH	pH
BY-GSA-MW-9	5/1/2018 9:48	21.55	C	Temperature
BY-GSA-MW-9	5/1/2018 9:48	0.68	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-10	5/1/2018 10:24	56.8	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:24	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:24	4.82	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:24	175.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:24	4.61	pH	pH
BY-GSA-MW-10	5/1/2018 10:24	20.92	C	Temperature
BY-GSA-MW-10	5/1/2018 10:24	4.2	NTU	Turbidity
BY-GSA-MW-10	5/1/2018 10:29	57.2	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:29	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:29	4.87	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:29	172.5	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:29	4.59	pH	pH
BY-GSA-MW-10	5/1/2018 10:29	20.93	C	Temperature
BY-GSA-MW-10	5/1/2018 10:29	3.07	NTU	Turbidity
BY-GSA-MW-10	5/1/2018 10:34	55.5	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:34	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:34	4.95	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:34	169.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:34	4.62	pH	pH
BY-GSA-MW-10	5/1/2018 10:34	20.96	C	Temperature
BY-GSA-MW-10	5/1/2018 10:34	1.32	NTU	Turbidity
BY-GSA-MW-10	5/1/2018 10:39	56.1	uS/cm	Conductivity
BY-GSA-MW-10	5/1/2018 10:39	11.22	ft	Depth to Water Detail
BY-GSA-MW-10	5/1/2018 10:39	4.84	mg/L	DO
BY-GSA-MW-10	5/1/2018 10:39	169	mv	Oxidation Reduction Potention
BY-GSA-MW-10	5/1/2018 10:39	4.61	pH	pH
BY-GSA-MW-10	5/1/2018 10:39	21.06	C	Temperature
BY-GSA-MW-10	5/1/2018 10:39	0.62	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-1	11/27/2018 14:51	81.8	uS/cm	Conductivity
BY-GSA-MW-1	11/27/2018 14:51	14.8	ft	Depth to Water Detail
BY-GSA-MW-1	11/27/2018 14:51	0.3	mg/L	DO
BY-GSA-MW-1	11/27/2018 14:51	193.1	mv	Oxidation Reduction Potention
BY-GSA-MW-1	11/27/2018 14:51	4.74	pH	pH
BY-GSA-MW-1	11/27/2018 14:51	20.66	C	Temperature
BY-GSA-MW-1	11/27/2018 14:51	1.25	NTU	Turbidity
BY-GSA-MW-1	11/27/2018 14:56	81.4	uS/cm	Conductivity
BY-GSA-MW-1	11/27/2018 14:56	14.8	ft	Depth to Water Detail
BY-GSA-MW-1	11/27/2018 14:56	0.26	mg/L	DO
BY-GSA-MW-1	11/27/2018 14:56	185.9	mv	Oxidation Reduction Potention
BY-GSA-MW-1	11/27/2018 14:56	4.74	pH	pH
BY-GSA-MW-1	11/27/2018 14:56	20.7	C	Temperature
BY-GSA-MW-1	11/27/2018 14:56	0.72	NTU	Turbidity
BY-GSA-MW-1	11/27/2018 15:01	81.6	uS/cm	Conductivity
BY-GSA-MW-1	11/27/2018 15:01	14.8	ft	Depth to Water Detail
BY-GSA-MW-1	11/27/2018 15:01	0.24	mg/L	DO
BY-GSA-MW-1	11/27/2018 15:01	180	mv	Oxidation Reduction Potention
BY-GSA-MW-1	11/27/2018 15:01	4.74	pH	pH
BY-GSA-MW-1	11/27/2018 15:01	20.7	C	Temperature
BY-GSA-MW-1	11/27/2018 15:01	0.68	NTU	Turbidity
BY-GSA-MW-1	11/27/2018 15:06	80.6	uS/cm	Conductivity
BY-GSA-MW-1	11/27/2018 15:06	14.8	ft	Depth to Water Detail
BY-GSA-MW-1	11/27/2018 15:06	0.23	mg/L	DO
BY-GSA-MW-1	11/27/2018 15:06	176.6	mv	Oxidation Reduction Potention
BY-GSA-MW-1	11/27/2018 15:06	4.73	pH	pH
BY-GSA-MW-1	11/27/2018 15:06	20.66	C	Temperature
BY-GSA-MW-1	11/27/2018 15:06	0.63	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-2	11/27/2018 13:18	63	uS/cm	Conductivity
BY-GSA-MW-2	11/27/2018 13:18	14.25	ft	Depth to Water Detail
BY-GSA-MW-2	11/27/2018 13:18	6.74	mg/L	DO
BY-GSA-MW-2	11/27/2018 13:18	259.6	mv	Oxidation Reduction Potential
BY-GSA-MW-2	11/27/2018 13:18	4.68	pH	pH
BY-GSA-MW-2	11/27/2018 13:18	20.17	C	Temperature
BY-GSA-MW-2	11/27/2018 13:18	0.85	NTU	Turbidity
BY-GSA-MW-2	11/27/2018 13:23	60.4	uS/cm	Conductivity
BY-GSA-MW-2	11/27/2018 13:23	14.25	ft	Depth to Water Detail
BY-GSA-MW-2	11/27/2018 13:23	6.63	mg/L	DO
BY-GSA-MW-2	11/27/2018 13:23	254.4	mv	Oxidation Reduction Potential
BY-GSA-MW-2	11/27/2018 13:23	4.71	pH	pH
BY-GSA-MW-2	11/27/2018 13:23	20.13	C	Temperature
BY-GSA-MW-2	11/27/2018 13:23	0.65	NTU	Turbidity
BY-GSA-MW-2	11/27/2018 13:28	59.3	uS/cm	Conductivity
BY-GSA-MW-2	11/27/2018 13:28	14.25	ft	Depth to Water Detail
BY-GSA-MW-2	11/27/2018 13:28	6.53	mg/L	DO
BY-GSA-MW-2	11/27/2018 13:28	252.5	mv	Oxidation Reduction Potential
BY-GSA-MW-2	11/27/2018 13:28	4.71	pH	pH
BY-GSA-MW-2	11/27/2018 13:28	20.08	C	Temperature
BY-GSA-MW-2	11/27/2018 13:28	0.64	NTU	Turbidity
BY-GSA-MW-2	11/27/2018 13:33	58.4	uS/cm	Conductivity
BY-GSA-MW-2	11/27/2018 13:33	14.25	ft	Depth to Water Detail
BY-GSA-MW-2	11/27/2018 13:33	6.48	mg/L	DO
BY-GSA-MW-2	11/27/2018 13:33	250.5	mv	Oxidation Reduction Potential
BY-GSA-MW-2	11/27/2018 13:33	4.72	pH	pH
BY-GSA-MW-2	11/27/2018 13:33	20.05	C	Temperature
BY-GSA-MW-2	11/27/2018 13:33	0.66	NTU	Turbidity

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Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-3	11/27/2018 11:54	47.9	uS/cm	Conductivity
BY-GSA-MW-3	11/27/2018 11:54	16.87	ft	Depth to Water Detail
BY-GSA-MW-3	11/27/2018 11:54	6.24	mg/L	DO
BY-GSA-MW-3	11/27/2018 11:54	247.2	mv	Oxidation Reduction Potential
BY-GSA-MW-3	11/27/2018 11:54	4.94	pH	pH
BY-GSA-MW-3	11/27/2018 11:54	20.09	C	Temperature
BY-GSA-MW-3	11/27/2018 11:54	0.46	NTU	Turbidity
BY-GSA-MW-3	11/27/2018 11:59	47.1	uS/cm	Conductivity
BY-GSA-MW-3	11/27/2018 11:59	16.87	ft	Depth to Water Detail
BY-GSA-MW-3	11/27/2018 11:59	5.92	mg/L	DO
BY-GSA-MW-3	11/27/2018 11:59	243.5	mv	Oxidation Reduction Potential
BY-GSA-MW-3	11/27/2018 11:59	4.94	pH	pH
BY-GSA-MW-3	11/27/2018 11:59	20.13	C	Temperature
BY-GSA-MW-3	11/27/2018 11:59	0.44	NTU	Turbidity
BY-GSA-MW-3	11/27/2018 12:04	46.7	uS/cm	Conductivity
BY-GSA-MW-3	11/27/2018 12:04	16.87	ft	Depth to Water Detail
BY-GSA-MW-3	11/27/2018 12:04	5.92	mg/L	DO
BY-GSA-MW-3	11/27/2018 12:04	241.8	mv	Oxidation Reduction Potential
BY-GSA-MW-3	11/27/2018 12:04	4.94	pH	pH
BY-GSA-MW-3	11/27/2018 12:04	20.13	C	Temperature
BY-GSA-MW-3	11/27/2018 12:04	0.45	NTU	Turbidity
BY-GSA-MW-3	11/27/2018 12:09	46.3	uS/cm	Conductivity
BY-GSA-MW-3	11/27/2018 12:09	16.87	ft	Depth to Water Detail
BY-GSA-MW-3	11/27/2018 12:09	5.98	mg/L	DO
BY-GSA-MW-3	11/27/2018 12:09	240.6	mv	Oxidation Reduction Potential
BY-GSA-MW-3	11/27/2018 12:09	4.94	pH	pH
BY-GSA-MW-3	11/27/2018 12:09	20.17	C	Temperature
BY-GSA-MW-3	11/27/2018 12:09	0.4	NTU	Turbidity

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Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-4	11/26/2018 16:24	50.4	uS/cm	Conductivity
BY-GSA-MW-4	11/26/2018 16:24	23.02	ft	Depth to Water Detail
BY-GSA-MW-4	11/26/2018 16:24	6.65	mg/L	DO
BY-GSA-MW-4	11/26/2018 16:24	186	mv	Oxidation Reduction Potention
BY-GSA-MW-4	11/26/2018 16:24	4.86	pH	pH
BY-GSA-MW-4	11/26/2018 16:24	20.51	C	Temperature
BY-GSA-MW-4	11/26/2018 16:24	0.99	NTU	Turbidity
BY-GSA-MW-4	11/26/2018 16:29	50	uS/cm	Conductivity
BY-GSA-MW-4	11/26/2018 16:29	23.02	ft	Depth to Water Detail
BY-GSA-MW-4	11/26/2018 16:29	6.61	mg/L	DO
BY-GSA-MW-4	11/26/2018 16:29	183.1	mv	Oxidation Reduction Potention
BY-GSA-MW-4	11/26/2018 16:29	4.86	pH	pH
BY-GSA-MW-4	11/26/2018 16:29	20.48	C	Temperature
BY-GSA-MW-4	11/26/2018 16:29	1.2	NTU	Turbidity
BY-GSA-MW-4	11/26/2018 16:34	49.7	uS/cm	Conductivity
BY-GSA-MW-4	11/26/2018 16:34	23.02	ft	Depth to Water Detail
BY-GSA-MW-4	11/26/2018 16:34	6.58	mg/L	DO
BY-GSA-MW-4	11/26/2018 16:34	182.8	mv	Oxidation Reduction Potention
BY-GSA-MW-4	11/26/2018 16:34	4.84	pH	pH
BY-GSA-MW-4	11/26/2018 16:34	20.39	C	Temperature
BY-GSA-MW-4	11/26/2018 16:34	0.72	NTU	Turbidity
BY-GSA-MW-4	11/26/2018 16:39	49	uS/cm	Conductivity
BY-GSA-MW-4	11/26/2018 16:39	23.02	ft	Depth to Water Detail
BY-GSA-MW-4	11/26/2018 16:39	6.53	mg/L	DO
BY-GSA-MW-4	11/26/2018 16:39	180	mv	Oxidation Reduction Potention
BY-GSA-MW-4	11/26/2018 16:39	4.88	pH	pH
BY-GSA-MW-4	11/26/2018 16:39	20.4	C	Temperature
BY-GSA-MW-4	11/26/2018 16:39	0.65	NTU	Turbidity

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Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-5	11/27/2018 10:51	41.7	uS/cm	Conductivity
BY-GSA-MW-5	11/27/2018 10:51	29.19	ft	Depth to Water Detail
BY-GSA-MW-5	11/27/2018 10:51	5.81	mg/L	DO
BY-GSA-MW-5	11/27/2018 10:51	250.5	mv	Oxidation Reduction Potential
BY-GSA-MW-5	11/27/2018 10:51	4.93	pH	pH
BY-GSA-MW-5	11/27/2018 10:51	20.48	C	Temperature
BY-GSA-MW-5	11/27/2018 10:51	1.2	NTU	Turbidity
BY-GSA-MW-5	11/27/2018 10:56	41.8	uS/cm	Conductivity
BY-GSA-MW-5	11/27/2018 10:56	29.19	ft	Depth to Water Detail
BY-GSA-MW-5	11/27/2018 10:56	5.79	mg/L	DO
BY-GSA-MW-5	11/27/2018 10:56	247.1	mv	Oxidation Reduction Potential
BY-GSA-MW-5	11/27/2018 10:56	4.92	pH	pH
BY-GSA-MW-5	11/27/2018 10:56	20.44	C	Temperature
BY-GSA-MW-5	11/27/2018 10:56	0.87	NTU	Turbidity
BY-GSA-MW-5	11/27/2018 11:01	41.7	uS/cm	Conductivity
BY-GSA-MW-5	11/27/2018 11:01	29.19	ft	Depth to Water Detail
BY-GSA-MW-5	11/27/2018 11:01	5.79	mg/L	DO
BY-GSA-MW-5	11/27/2018 11:01	245.5	mv	Oxidation Reduction Potential
BY-GSA-MW-5	11/27/2018 11:01	4.92	pH	pH
BY-GSA-MW-5	11/27/2018 11:01	20.42	C	Temperature
BY-GSA-MW-5	11/27/2018 11:01	0.65	NTU	Turbidity
BY-GSA-MW-5	11/27/2018 11:06	41.7	uS/cm	Conductivity
BY-GSA-MW-5	11/27/2018 11:06	29.19	ft	Depth to Water Detail
BY-GSA-MW-5	11/27/2018 11:06	5.73	mg/L	DO
BY-GSA-MW-5	11/27/2018 11:06	244.1	mv	Oxidation Reduction Potential
BY-GSA-MW-5	11/27/2018 11:06	4.92	pH	pH
BY-GSA-MW-5	11/27/2018 11:06	20.39	C	Temperature
BY-GSA-MW-5	11/27/2018 11:06	0.65	NTU	Turbidity

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Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-6	11/26/2018 15:15	53.2	uS/cm	Conductivity
BY-GSA-MW-6	11/26/2018 15:15	17.01	ft	Depth to Water Detail
BY-GSA-MW-6	11/26/2018 15:15	5.86	mg/L	DO
BY-GSA-MW-6	11/26/2018 15:15	175.1	mv	Oxidation Reduction Potential
BY-GSA-MW-6	11/26/2018 15:15	5.4	pH	pH
BY-GSA-MW-6	11/26/2018 15:15	22.17	C	Temperature
BY-GSA-MW-6	11/26/2018 15:15	0.87	NTU	Turbidity
BY-GSA-MW-6	11/26/2018 15:20	55.3	uS/cm	Conductivity
BY-GSA-MW-6	11/26/2018 15:20	17.01	ft	Depth to Water Detail
BY-GSA-MW-6	11/26/2018 15:20	5.78	mg/L	DO
BY-GSA-MW-6	11/26/2018 15:20	167.9	mv	Oxidation Reduction Potential
BY-GSA-MW-6	11/26/2018 15:20	5.48	pH	pH
BY-GSA-MW-6	11/26/2018 15:20	22.18	C	Temperature
BY-GSA-MW-6	11/26/2018 15:20	0.72	NTU	Turbidity
BY-GSA-MW-6	11/26/2018 15:25	56.5	uS/cm	Conductivity
BY-GSA-MW-6	11/26/2018 15:25	17.01	ft	Depth to Water Detail
BY-GSA-MW-6	11/26/2018 15:25	5.73	mg/L	DO
BY-GSA-MW-6	11/26/2018 15:25	163.8	mv	Oxidation Reduction Potential
BY-GSA-MW-6	11/26/2018 15:25	5.52	pH	pH
BY-GSA-MW-6	11/26/2018 15:25	22.15	C	Temperature
BY-GSA-MW-6	11/26/2018 15:25	0.53	NTU	Turbidity
BY-GSA-MW-6	11/26/2018 15:30	60.5	uS/cm	Conductivity
BY-GSA-MW-6	11/26/2018 15:30	17.01	ft	Depth to Water Detail
BY-GSA-MW-6	11/26/2018 15:30	5.71	mg/L	DO
BY-GSA-MW-6	11/26/2018 15:30	157.8	mv	Oxidation Reduction Potential
BY-GSA-MW-6	11/26/2018 15:30	5.65	pH	pH
BY-GSA-MW-6	11/26/2018 15:30	22.1	C	Temperature
BY-GSA-MW-6	11/26/2018 15:30	0.47	NTU	Turbidity
BY-GSA-MW-6	11/26/2018 15:35	58.7	uS/cm	Conductivity
BY-GSA-MW-6	11/26/2018 15:35	17.01	ft	Depth to Water Detail
BY-GSA-MW-6	11/26/2018 15:35	5.7	mg/L	DO
BY-GSA-MW-6	11/26/2018 15:35	158.9	mv	Oxidation Reduction Potential
BY-GSA-MW-6	11/26/2018 15:35	5.6	pH	pH
BY-GSA-MW-6	11/26/2018 15:35	22.13	C	Temperature
BY-GSA-MW-6	11/26/2018 15:35	0.41	NTU	Turbidity
BY-GSA-MW-6	11/26/2018 15:40	58	uS/cm	Conductivity
BY-GSA-MW-6	11/26/2018 15:40	17.01	ft	Depth to Water Detail
BY-GSA-MW-6	11/26/2018 15:40	5.72	mg/L	DO
BY-GSA-MW-6	11/26/2018 15:40	158.8	mv	Oxidation Reduction Potential
BY-GSA-MW-6	11/26/2018 15:40	5.58	pH	pH
BY-GSA-MW-6	11/26/2018 15:40	22.17	C	Temperature
BY-GSA-MW-6	11/26/2018 15:40	0.45	NTU	Turbidity

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WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-7	11/27/2018 8:33	34.4	uS/cm	Conductivity
BY-GSA-MW-7	11/27/2018 8:33	15.97	ft	Depth to Water Detail
BY-GSA-MW-7	11/27/2018 8:33	4.25	mg/L	DO
BY-GSA-MW-7	11/27/2018 8:33	263.3	mv	Oxidation Reduction Potential
BY-GSA-MW-7	11/27/2018 8:33	5.06	pH	pH
BY-GSA-MW-7	11/27/2018 8:33	20.75	C	Temperature
BY-GSA-MW-7	11/27/2018 8:33	1.18	NTU	Turbidity
BY-GSA-MW-7	11/27/2018 8:38	33.3	uS/cm	Conductivity
BY-GSA-MW-7	11/27/2018 8:38	15.97	ft	Depth to Water Detail
BY-GSA-MW-7	11/27/2018 8:38	0	mg/L	DO
BY-GSA-MW-7	11/27/2018 8:38	259.1	mv	Oxidation Reduction Potential
BY-GSA-MW-7	11/27/2018 8:38	5.06	pH	pH
BY-GSA-MW-7	11/27/2018 8:38	20.7	C	Temperature
BY-GSA-MW-7	11/27/2018 8:38	2.65	NTU	Turbidity
BY-GSA-MW-7	11/27/2018 8:43	34.4	uS/cm	Conductivity
BY-GSA-MW-7	11/27/2018 8:43	15.97	ft	Depth to Water Detail
BY-GSA-MW-7	11/27/2018 8:43	4.35	mg/L	DO
BY-GSA-MW-7	11/27/2018 8:43	255.6	mv	Oxidation Reduction Potential
BY-GSA-MW-7	11/27/2018 8:43	5.07	pH	pH
BY-GSA-MW-7	11/27/2018 8:43	20.71	C	Temperature
BY-GSA-MW-7	11/27/2018 8:43	1.1	NTU	Turbidity
BY-GSA-MW-7	11/27/2018 8:48	34.3	uS/cm	Conductivity
BY-GSA-MW-7	11/27/2018 8:48	15.97	ft	Depth to Water Detail
BY-GSA-MW-7	11/27/2018 8:48	4.2	mg/L	DO
BY-GSA-MW-7	11/27/2018 8:48	252.8	mv	Oxidation Reduction Potential
BY-GSA-MW-7	11/27/2018 8:48	5.06	pH	pH
BY-GSA-MW-7	11/27/2018 8:48	20.66	C	Temperature
BY-GSA-MW-7	11/27/2018 8:48	0.83	NTU	Turbidity
BY-GSA-MW-7	11/27/2018 8:53	34.2	uS/cm	Conductivity
BY-GSA-MW-7	11/27/2018 8:53	15.97	ft	Depth to Water Detail
BY-GSA-MW-7	11/27/2018 8:53	4.2	mg/L	DO
BY-GSA-MW-7	11/27/2018 8:53	251.1	mv	Oxidation Reduction Potential
BY-GSA-MW-7	11/27/2018 8:53	5.05	pH	pH
BY-GSA-MW-7	11/27/2018 8:53	20.74	C	Temperature
BY-GSA-MW-7	11/27/2018 8:53	0.69	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-8	11/27/2018 9:49	41.2	uS/cm	Conductivity
BY-GSA-MW-8	11/27/2018 9:49	29.4	ft	Depth to Water Detail
BY-GSA-MW-8	11/27/2018 9:49	1.13	mg/L	DO
BY-GSA-MW-8	11/27/2018 9:49	215.8	mv	Oxidation Reduction Potention
BY-GSA-MW-8	11/27/2018 9:49	5.07	pH	pH
BY-GSA-MW-8	11/27/2018 9:49	19.86	C	Temperature
BY-GSA-MW-8	11/27/2018 9:49	4.94	NTU	Turbidity
BY-GSA-MW-8	11/27/2018 9:54	40.8	uS/cm	Conductivity
BY-GSA-MW-8	11/27/2018 9:54	29.4	ft	Depth to Water Detail
BY-GSA-MW-8	11/27/2018 9:54	1.07	mg/L	DO
BY-GSA-MW-8	11/27/2018 9:54	210.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	11/27/2018 9:54	5.05	pH	pH
BY-GSA-MW-8	11/27/2018 9:54	19.9	C	Temperature
BY-GSA-MW-8	11/27/2018 9:54	3.69	NTU	Turbidity
BY-GSA-MW-8	11/27/2018 9:59	40.9	uS/cm	Conductivity
BY-GSA-MW-8	11/27/2018 9:59	29.4	ft	Depth to Water Detail
BY-GSA-MW-8	11/27/2018 9:59	1.05	mg/L	DO
BY-GSA-MW-8	11/27/2018 9:59	206.3	mv	Oxidation Reduction Potention
BY-GSA-MW-8	11/27/2018 9:59	5.06	pH	pH
BY-GSA-MW-8	11/27/2018 9:59	19.9	C	Temperature
BY-GSA-MW-8	11/27/2018 9:59	2.62	NTU	Turbidity
BY-GSA-MW-8	11/27/2018 10:04	40.9	uS/cm	Conductivity
BY-GSA-MW-8	11/27/2018 10:04	29.4	ft	Depth to Water Detail
BY-GSA-MW-8	11/27/2018 10:04	1.05	mg/L	DO
BY-GSA-MW-8	11/27/2018 10:04	204.2	mv	Oxidation Reduction Potention
BY-GSA-MW-8	11/27/2018 10:04	5.06	pH	pH
BY-GSA-MW-8	11/27/2018 10:04	20.04	C	Temperature
BY-GSA-MW-8	11/27/2018 10:04	2.33	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-9	11/26/2018 13:29	80	uS/cm	Conductivity
BY-GSA-MW-9	11/26/2018 13:29	8.28	ft	Depth to Water Detail
BY-GSA-MW-9	11/26/2018 13:29	2.85	mg/L	DO
BY-GSA-MW-9	11/26/2018 13:29	236.8	mv	Oxidation Reduction Potention
BY-GSA-MW-9	11/26/2018 13:29	4.51	pH	pH
BY-GSA-MW-9	11/26/2018 13:29	22.36	C	Temperature
BY-GSA-MW-9	11/26/2018 13:29	1.58	NTU	Turbidity
BY-GSA-MW-9	11/26/2018 13:34	78.8	uS/cm	Conductivity
BY-GSA-MW-9	11/26/2018 13:34	8.28	ft	Depth to Water Detail
BY-GSA-MW-9	11/26/2018 13:34	2.68	mg/L	DO
BY-GSA-MW-9	11/26/2018 13:34	222.1	mv	Oxidation Reduction Potention
BY-GSA-MW-9	11/26/2018 13:34	4.51	pH	pH
BY-GSA-MW-9	11/26/2018 13:34	22.28	C	Temperature
BY-GSA-MW-9	11/26/2018 13:34	1.05	NTU	Turbidity
BY-GSA-MW-9	11/26/2018 13:39	78.4	uS/cm	Conductivity
BY-GSA-MW-9	11/26/2018 13:39	8.28	ft	Depth to Water Detail
BY-GSA-MW-9	11/26/2018 13:39	2.7	mg/L	DO
BY-GSA-MW-9	11/26/2018 13:39	215.2	mv	Oxidation Reduction Potention
BY-GSA-MW-9	11/26/2018 13:39	4.5	pH	pH
BY-GSA-MW-9	11/26/2018 13:39	22.25	C	Temperature
BY-GSA-MW-9	11/26/2018 13:39	0.71	NTU	Turbidity
BY-GSA-MW-9	11/26/2018 13:44	78	uS/cm	Conductivity
BY-GSA-MW-9	11/26/2018 13:44	8.28	ft	Depth to Water Detail
BY-GSA-MW-9	11/26/2018 13:44	2.63	mg/L	DO
BY-GSA-MW-9	11/26/2018 13:44	210.5	mv	Oxidation Reduction Potention
BY-GSA-MW-9	11/26/2018 13:44	4.5	pH	pH
BY-GSA-MW-9	11/26/2018 13:44	22.37	C	Temperature
BY-GSA-MW-9	11/26/2018 13:44	0.71	NTU	Turbidity

**Alabama Power Company
Plant Barry Gypsum Pond**

WELL ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-GSA-MW-10	11/26/2018 14:21	59.2	uS/cm	Conductivity
BY-GSA-MW-10	11/26/2018 14:21	12.21	ft	Depth to Water Detail
BY-GSA-MW-10	11/26/2018 14:21	4.6	mg/L	DO
BY-GSA-MW-10	11/26/2018 14:21	208.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	11/26/2018 14:21	4.64	pH	pH
BY-GSA-MW-10	11/26/2018 14:21	20.83	C	Temperature
BY-GSA-MW-10	11/26/2018 14:21	0.47	NTU	Turbidity
BY-GSA-MW-10	11/26/2018 14:26	58.8	uS/cm	Conductivity
BY-GSA-MW-10	11/26/2018 14:26	12.21	ft	Depth to Water Detail
BY-GSA-MW-10	11/26/2018 14:26	4.57	mg/L	DO
BY-GSA-MW-10	11/26/2018 14:26	202.5	mv	Oxidation Reduction Potention
BY-GSA-MW-10	11/26/2018 14:26	4.65	pH	pH
BY-GSA-MW-10	11/26/2018 14:26	20.79	C	Temperature
BY-GSA-MW-10	11/26/2018 14:26	0.49	NTU	Turbidity
BY-GSA-MW-10	11/26/2018 14:31	58.2	uS/cm	Conductivity
BY-GSA-MW-10	11/26/2018 14:31	12.21	ft	Depth to Water Detail
BY-GSA-MW-10	11/26/2018 14:31	4.53	mg/L	DO
BY-GSA-MW-10	11/26/2018 14:31	199.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	11/26/2018 14:31	4.65	pH	pH
BY-GSA-MW-10	11/26/2018 14:31	20.76	C	Temperature
BY-GSA-MW-10	11/26/2018 14:31	0.47	NTU	Turbidity
BY-GSA-MW-10	11/26/2018 14:36	57.7	uS/cm	Conductivity
BY-GSA-MW-10	11/26/2018 14:36	12.21	ft	Depth to Water Detail
BY-GSA-MW-10	11/26/2018 14:36	4.49	mg/L	DO
BY-GSA-MW-10	11/26/2018 14:36	197.8	mv	Oxidation Reduction Potention
BY-GSA-MW-10	11/26/2018 14:36	4.65	pH	pH
BY-GSA-MW-10	11/26/2018 14:36	20.71	C	Temperature
BY-GSA-MW-10	11/26/2018 14:36	0.42	NTU	Turbidity



Plant Barry Gypsum Storage

General Chemistry Event

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
 - Field Blank 1 (FB-1) had results greater than the reporting limit (RL) for Bicarbonate Alkalinity.
 - Equipment Blank 1 (EB-1) had results greater than the RL for Bicarbonate Alkalinity.

- Calibration verification for all required field parameters were performed daily, before and after sample collection.

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



Sample Group : WMWBARG_1161

Project/Site : Barry Gypsum
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control: Laura Midkiff
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lbmidkif@southernco.com, c=US
Date: 2018.10.29 12:59:12 -05'00'

Supervision: T. Durant
Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2018.10.29 14:11:21 -05'00'



Alkalinity

Barry Gypsum

WMWBARG_1161

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>
AY20813	627752 & 627753	WMWBARG_1161
AY20814	627752 & 627753	WMWBARG_1161
AY20815	627752 & 627753	WMWBARG_1161
AY20816	627752 & 627753	WMWBARG_1161
AY20817	627752 & 627753	WMWBARG_1161
AY20818	627752 & 627753	WMWBARG_1161
AY20819	627752 & 627753	WMWBARG_1161
AY20820	627752 & 627753	WMWBARG_1161
AY20821	627752 & 627753	WMWBARG_1161
AY20986	627752 & 627753	WMWBARG_1161
AY20987	627876 & 627877	WMWBARG_1161
AY20988	627876 & 627877	WMWBARG_1161
AY20989	627877	WMWBARG_1161
AY20990	627877	WMWBARG_1161
AY20991	627876 & 627877	WMWBARG_1161
AY20992	627876 & 627877	WMWBARG_1161
AY20993	627876 & 627877	WMWBARG_1161

4. All of the above samples were analyzed by Standard Method 2320B except AY20989 & AY20990. Both had a starting pH below the 4.5 titration limit. Therefore, Alkalinity was not able to be performed on AY20989 & AY20990.
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:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. The below samples did not meet the 10 RPD requirement but precision was less than 20ppm and therefore is not relevant.

Sample ID

AY20986

AY20993



Dissolved Metals ICP

Barry Gypsum

WMWBARG_1161

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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>
AY20813	627681	WMWBARG_1161
AY20814	627681	WMWBARG_1161
AY20815	627681	WMWBARG_1161
AY20816	627681	WMWBARG_1161
AY20817	627681	WMWBARG_1161
AY20818	627681	WMWBARG_1161
AY20819	627681	WMWBARG_1161
AY20820	627681	WMWBARG_1161
AY20821	627681	WMWBARG_1161
AY20986	627681	WMWBARG_1161
AY20987	627682	WMWBARG_1161
AY20988	627682	WMWBARG_1161
AY20989	627682	WMWBARG_1161
AY20990	627682	WMWBARG_1161
AY20991	627682	WMWBARG_1161
AY20992	627682	WMWBARG_1161
AY20993	627682	WMWBARG_1161

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638 for dissolved analysis.
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:

- 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.
- Due to no filtered MB or LCS submitted with sample set, an unfiltered method blank and laboratory control sample were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each 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 analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Dissolved Metals ICPMS

Barry Gypsum

WMWBARG_1161

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>
AY20813	627631	WMWBARG_1161
AY20814	627631	WMWBARG_1161
AY20815	627631	WMWBARG_1161
AY20816	627631	WMWBARG_1161
AY20817	627631	WMWBARG_1161
AY20818	627631	WMWBARG_1161
AY20819	627631	WMWBARG_1161
AY20820	627631	WMWBARG_1161
AY20821	627631	WMWBARG_1161
AY20986	627631	WMWBARG_1161
AY20987	627632	WMWBARG_1161
AY20988	627632	WMWBARG_1161
AY20989	627632	WMWBARG_1161
AY20990	627632	WMWBARG_1161
AY20991	627632	WMWBARG_1161
AY20992	627632	WMWBARG_1161
AY20993	627632	WMWBARG_1161

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
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:

- 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.
- 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 x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Metals ICP

Barry Gypsum

WMWBARG_1161

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>
AY20813	627956	WMWBARG_1161
AY20814	627956	WMWBARG_1161
AY20815	627956	WMWBARG_1161
AY20816	627956	WMWBARG_1161
AY20817	627956	WMWBARG_1161
AY20818	627956	WMWBARG_1161
AY20819	627956	WMWBARG_1161
AY20820	627956	WMWBARG_1161
AY20821	627956	WMWBARG_1161
AY20986	627956	WMWBARG_1161
AY20987	627957	WMWBARG_1161
AY20988	627957	WMWBARG_1161
AY20989	627957	WMWBARG_1161
AY20990	627957	WMWBARG_1161
AY20991	627957	WMWBARG_1161
AY20992	627957	WMWBARG_1161
AY20993	627957	WMWBARG_1161

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
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:

- 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 except for AY20986. A post digestion spike and serial dilution were performed and indicate a matrix effect from 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 a x2.03 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



Metals ICPMS

Barry Gypsum

WMWBARG_1161

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>
AY20813	627648	WMWBARG_1161
AY20814	627648	WMWBARG_1161
AY20815	627648	WMWBARG_1161
AY20816	627648	WMWBARG_1161
AY20817	627648	WMWBARG_1161
AY20818	627648	WMWBARG_1161
AY20819	627648	WMWBARG_1161
AY20820	627648	WMWBARG_1161
AY20821	627648	WMWBARG_1161
AY20986	627648	WMWBARG_1161
AY20987	627780	WMWBARG_1161
AY20988	627780	WMWBARG_1161
AY20989	627780	WMWBARG_1161
AY20990	627780	WMWBARG_1161
AY20991	627780	WMWBARG_1161
AY20992	627780	WMWBARG_1161
AY20993	627780	WMWBARG_1161

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
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:

- 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 x5.075 dilution to compensate for potential matrix effects.
 8. The raw data results are shown with dilution factors included.



TDS

Barry Gypsum

WMWBARG_1161

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>
AY20813	627494	WMWBARG_1161
AY20814	627494	WMWBARG_1161
AY20815	627494	WMWBARG_1161
AY20816	627494	WMWBARG_1161
AY20817	627494	WMWBARG_1161
AY20818	627494	WMWBARG_1161
AY20819	627494	WMWBARG_1161
AY20820	627495	WMWBARG_1161
AY20821	627495	WMWBARG_1161
AY20986	627495	WMWBARG_1161
AY20987	627495	WMWBARG_1161
AY20988	627495	WMWBARG_1161
AY20989	627495	WMWBARG_1161
AY20990	627495	WMWBARG_1161
AY20991	627495	WMWBARG_1161
AY20992	627495	WMWBARG_1161
AY20993	627495	WMWBARG_1161

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.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was not less than 5% but was under the RL. Therefore, the results are acceptable.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5mg and 200mg residue except for AY20815, AY20816, AY20819, AY20988, AY20993 in which case 150mL of sample was filtered.

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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY20813

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.70	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.86	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0358	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0329	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.28	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.956	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	4.53	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	26.7	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY20813

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AY20986	Alkalinity, Total as CaCO3	mg/L				0.820	49.9	45.0 to 55.0				29.2	10	
AY20986	Mangnese, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115		94.2	70 to 130	1.45	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23		96.6	70 to 130	1.99	20
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23		142	70 to 130	1.96	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75		98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU					7.01	6.95 to 7.05						
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5		102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75		100	70 to 130	0.502	20
AY20986	Mangnese, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115		98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75		96.9	70 to 130	0.471	20

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY20813

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20819	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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CC:

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY20814

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.936	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.14	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0333	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0307	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.76	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.761	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	4.81	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	40.0	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY20814

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY20986	Manganese, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115		94.2	70 to 130	1.45	20
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23		142	70 to 130	1.96	20
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0				29.2	10
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23		96.6	70 to 130	1.99	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75		98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5		102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75		100	70 to 130	0.502	20
AY20986	Manganese, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115		98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75		96.9	70 to 130	0.471	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY20814

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20819	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Expiration: June 30, 2019

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CC:

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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-10 Dup

Laboratory ID Number: AY20815

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.934	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.13	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0320	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0293	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.76	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.741	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	4.80	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	0.30	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.30	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-10 Dup

Laboratory ID Number: AY20815

Sample	Analysis	Units	MB			LCS			Rec			Prec	Limit
			MB	Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0			29.2	10
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23	142	70 to 130	1.96	20
AY20986	Mangenes, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115	94.2	70 to 130	1.45	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23	96.6	70 to 130	1.99	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75	100	70 to 130	0.502	20
AY20986	Mangenes, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115	98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75	96.9	70 to 130	0.471	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75	98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5	102	70 to 130	0.102	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

Alabama Power General Test Laboratory
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-10 Dup

Laboratory ID Number: AY20815

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	
								Duplicate	LCS	Limit	Rec	Limit	Limit
AY20819	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0	40 to 60			0.00 5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY20816

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.811	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.795	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00828	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00802	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.04	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.726	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.25	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	2.10	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			2.10	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY20816

Sample	Analysis	Units	MB			MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			Limit	Spike	MB					Rec	Limit		
AY20986	Alkalinity, Total as CaCO3	mg/L				0.820	49.9	45.0 to 55.0			29.2	10	
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23	142	70 to 130	1.96	20
AY20986	Mangenes, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115	94.2	70 to 130	1.45	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23	96.6	70 to 130	1.99	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75	100	70 to 130	0.502	20
AY20986	Mangenes, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115	98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75	96.9	70 to 130	0.471	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75	98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU					7.01		6.95 to 7.05				
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5	102	70 to 130	0.102	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY20816

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LCS	Limit	Rec	Limit	Prec	
AY20819	Solids, Dissolved	mg/L	-2.00	25				-0.67	52.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY20817

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.48	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.01	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0118	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0123	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.68	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.935	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.80	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	8.40	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			8.40	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	39.3	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY20817

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY20986	Manganese, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115		94.2	70 to 130	1.45	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23		96.6	70 to 130	1.99	20
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0				29.2	10
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23		142	70 to 130	1.96	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75		98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5		102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75		100	70 to 130	0.502	20
AY20986	Manganese, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115		98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75		96.9	70 to 130	0.471	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY20817

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20819	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY20818

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.54	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.65	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0127	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0124	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.37	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.935	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.02	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	0.28	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.28	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY20818

Sample	Analysis	Units	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	Spike	MB				Limit	Rec	Limit	Prec		
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0				29.2	10
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23		142	70 to 130	1.96	20
AY20986	Mangenes, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115		94.2	70 to 130	1.45	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23		96.6	70 to 130	1.99	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75		98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5		102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75		100	70 to 130	0.502	20
AY20986	Mangenes, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115		98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75		96.9	70 to 130	0.471	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY20818

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	
								Duplicate	LCS	Limit	Rec	Limit	Limit
AY20818	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0	40 to 60			0.00 5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. LBM 10/18/18

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: WMWBARGFB
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY20819

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.56	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. The TDS precision result was not less than 5% but was under the RL. Therefore, the results are acceptable. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARGFB
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY20819

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23	96.6	70 to 130	1.99	20
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23	142	70 to 130	1.96	20
AY20986	Mangenes, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115	94.2	70 to 130	1.45	20
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0			29.2	10
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75	98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5	102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75	100	70 to 130	0.502	20
AY20986	Mangenes, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115	98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75	96.9	70 to 130	0.471	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 744 County 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: WMWBARGFB
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY20819

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20819	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY20820

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.39	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.29	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0116	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0107	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.54	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.845	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.01	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	0.50	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.50	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	30.0	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY20820

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY20986	Manganese, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115		94.2	70 to 130	1.45	20
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0				29.2	10
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23		142	70 to 130	1.96	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23		96.6	70 to 130	1.99	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75		100	70 to 130	0.502	20
AY20986	Manganese, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115		98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75		96.9	70 to 130	0.471	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75		98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5		102	70 to 130	0.102	20

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY20820

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20993	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY20821

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.729	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	0.137	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.833	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0139	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0113	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	4.58	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.789	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.21	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	3.00	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			3.00	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	28.7	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY20821

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20986	Manganese, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115	94.2	70 to 130	1.45	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23	96.6	70 to 130	1.99	20
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23	142	70 to 130	1.96	20
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0			29.2	10
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75	98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5	102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75	100	70 to 130	0.502	20
AY20986	Manganese, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115	98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75	96.9	70 to 130	0.471	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 28-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY20821

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20993	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-11

Laboratory ID Number: AY20986

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.567	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	J 0.0437	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.637	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00621	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00636	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.64	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.20	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.06	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	1.10	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			1.10	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. Evaluation of precision is not relevant on alkalinity results <20ppm. Recovery for Iron is out of spec. All other QC passed. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-11

Laboratory ID Number: AY20986

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AY20986	Manganese, Total	mg/L	0.0000123	0.0022	0.10	0.101	0.102	0.0959	0.085 to 0.115		94.2	70 to 130	1.45	20
AY20986	Alkalinity, Total as CaCO3	mg/L					0.820	49.9	45.0 to 55.0				29.2	10
AY20986	Iron, Total	mg/L	-0.000229	0.022	0.2	0.328	0.334	0.198027	0.17 to 0.23		142	70 to 130	1.96	20
AY20986	Iron, Dissolved	mg/L	-0.000317	0.022	0.2	0.193	0.197	0.199	0.17 to 0.23		96.6	70 to 130	1.99	20
AY20986	Magnesium, Total	mg/L	-0.00250	0.22	5.00	5.57	5.58	4.92	4.25 to 5.75		98.6	70 to 130	0.171	20
AY20986	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20986	Potassium, Total	mg/L	-0.00134	0.0946	10.0	11.4	11.4	10.4	8.5 to 11.5		102	70 to 130	0.102	20
AY20986	Calcium, Total	mg/L	0.00127	0.22	5.00	5.57	5.54	5.02	4.25 to 5.75		100	70 to 130	0.502	20
AY20986	Manganese, Dissolved	mg/L	-0.0000127	0.005	0.10	0.104	0.112		0.085 to 0.115		98.1	70 to 130	7.06	20
AY20986	Sodium, Total	mg/L	0.0000487	0.22	5.00	7.48	7.45	5.03	4.25 to 5.75		96.9	70 to 130	0.471	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. Evaluation of precision is not relevant on alkalinity results <20ppm. Recovery for Iron is out of spec. All other QC passed. LBM 10/18/18

Alabama Power General Test Laboratory
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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-11

Laboratory ID Number: AY20986

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	
								Duplicate	LCS	Limit	Rec	Limit	Limit
AY20993	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0	40 to 60			0.00 5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Qualifying TDS result, due to sample did not meet 2.5mg requirement. Max volume of 150mL were filtered. Evaluation of precision is not relevant on alkalinity results <20ppm. Recovery for Iron is out of spec. All other QC passed. LBM 10/18/18

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: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-12

Laboratory ID Number: AY20987

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Metals, Cyanide, Total Phenols										
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	J	0.261	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	J	0.0171	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	J	0.0235	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5		1.22	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005		0.0267	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005		0.0239	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5		2.53	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	J	0.676	mg/L
General Characteristics										
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00		4.80	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10		0.80	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1				0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1				0.80	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25		26.0	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1				08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-12

Laboratory ID Number: AY20987

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20
AY20993	Manganese, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20
AY20993	Manganese, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05				

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-12

Laboratory ID Number: AY20987

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20993	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

CC:

Alabama Power General Test Laboratory
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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY20988

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.46	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	0.16	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.16	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARGFB
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY20988

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20
AY20993	Mangnese, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20
AY20993	Mangnese, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY20988

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20993	Solids, Dissolved	mg/L	-2.00	25			-0.67	52.0	40 to 60	0.00	5

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Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory
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 Calera, AL 35040
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY20989

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.33	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	1.75	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	2.12	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.89	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.331	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.320	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	4.65	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	J 0.874	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	4.44	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	NA	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			NA	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			NA	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	58.0	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY20989

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20
AY20993	Mangenes, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20
AY20993	Mangenes, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY20989

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	
				Limit				Duplicate	LCS	Limit	Rec	Limit	Limit
AY20993	Solids, Dissolved	mg/L	-2.00	25				-0.67	52.0	40 to 60			0.00 5

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Expiration: June 30, 2019

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CC:

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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-1 DUP

Laboratory ID Number: AY20990

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.38	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	1.54	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	2.33	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.97	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.315	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.330	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	4.66	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	J 0.852	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	4.46	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	NA	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			NA	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			NA	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	56.0	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-1 DUP

Laboratory ID Number: AY20990

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20
AY20993	Mangnese, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20
AY20993	Mangnese, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-1 DUP

Laboratory ID Number: AY20990

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20993	Solids, Dissolved	mg/L	-2.00	25			-0.67	52.0	40 to 60	0.00	5

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CC:

Alabama Power General Test Laboratory
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY20991

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.50	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.65	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0297	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.0280	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.76	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	J 1.04	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	4.80	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	32.0	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY20991

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			MB	Limit					Limit	Rec	Limit	Prec	
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20
AY20993	Manganese, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20
AY20993	Manganese, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY20991

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	Rec	Prec	Prec	
				Limit				Duplicate	LCS	Limit	Rec	Limit	Limit
AY20993	Solids, Dissolved	mg/L	-2.00	25				-0.67	52.0	40 to 60			0.00 5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

CC:

Alabama Power General Test Laboratory
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY20992

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.69	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.64	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0152	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.0157	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.68	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	J 0.943	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.00	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	0.50	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.50	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	37.3	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY20992

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20
AY20993	Mangnese, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20
AY20993	Mangnese, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05				

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Expiration: June 30, 2019

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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY20992

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Limit			
AY20993	Solids, Dissolved	mg/L	-2.00		25			-0.67	52.0		40 to 60			0.00		5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/18/18

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: WMWBARGE B
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY20993

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	ABB	9/11/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
General Characteristics									
pH for Alkalinity	HRG	9/6/2018	SM 4500H+ B		1		4.00	5.33	SU
Alkalinity, Total as CaCO3	HRG	9/6/2018	SM 2320 B		1		0.10	0.28	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/6/2018	SM 4500CO2 D		1			0.28	mg/L
* Solids, Dissolved	CRB	9/5/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/31/2018	SM 2540C		1			08/31/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Evaluation of precision is not relevant on alkalinity due to result is less than 20ppm. The TDS precision result was not less than 5% but was under the RL. Therefore, the results are acceptable. LBM 10/18/18

Alabama Power General Test Laboratory
 744 County 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: WMWBARGE B
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY20993

Sample	Analysis	Units	MB	MB			MS	MSD	LCS		Rec		Prec	Limit
				Limit	Spike	MS			LCS	Limit	Rec	Limit		
AY20993	Sodium, Total	mg/L	-0.00438	0.22	5.00	4.89	5.00	4.91	4.25 to 5.75	97.8	70 to 130	2.27	20	
AY20993	Magnesium, Total	mg/L	-0.00133	0.22	5.00	4.85	4.93	4.87	4.25 to 5.75	97.1	70 to 130	1.63	20	
AY20993	Potassium, Total	mg/L	0.00315	0.0946	10.0	10.3	10.3	10.4	8.5 to 11.5	103	70 to 130	0.0155	20	
AY20993	Iron, Dissolved	mg/L	0.0000716	0.022	0.2	0.193	0.228	0.198	0.17 to 0.23	96.7	70 to 130	16.4	20	
AY20993	Iron, Total	mg/L	-0.000155	0.022	0.2	0.193	0.198	0.206223	0.17 to 0.23	96.7	70 to 130	2.38	20	
AY20993	Manganese, Total	mg/L	0.0000235	0.0022	0.10	0.0962	0.0970	0.0978	0.085 to 0.115	96.2	70 to 130	0.821	20	
AY20993	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20993	Alkalinity, Total as CaCO3	mg/L					0.140	50.0	45.0 to 55.0			66.7	10	
AY20993	Calcium, Total	mg/L	0.00322	0.22	5.00	4.89	4.94	5.01	4.25 to 5.75	97.7	70 to 130	1.18	20	
AY20993	Manganese, Dissolved	mg/L	-0.0000137	0.005	0.10	0.0984	0.104		0.085 to 0.115	98.4	70 to 130	5.89	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Evaluation of precision is not relevant on alkalinity due to result is less than 20ppm. The TDS precision result was not less than 5% but was under the RL. Therefore, the results are acceptable. LBM 10/18/18

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGEGB
 Sample Date: 29-Aug-18
 Customer ID:
 Delivery Date: 30-Aug-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY20993

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20993	Solids, Dissolved	mg/L	-2.00	25			-0.67	52.0	40 to 60	0.00	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.

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CC:

Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
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

Field Complete
 Lab Complete

Outside Lab

Lab ETA **08/29/2018 14:00**

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	Tamala Davis		Greg Dyer
	Ben Rothschild		Barry Gypsum

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Dissolved Meta	500 mL	4	Alkalinity	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	8/28/18	09:41	4	Groundwater		AY20813
MW-10	08/28/2018	10:37	4	Groundwater		AY20814
MW-10 DUP	08/28/2018	10:37	4	Sample Duplicate		AY20815
MW-7	08/28/2018	11:50	4	Groundwater		AY20816
MW-6	08/28/2018	12:55	4	Groundwater		AY20817
MW-4	08/28/2018	13:49	4	Groundwater		AY20818
FB-1	08/28/2018	14:10	4	Field Blank		AY20819
MW-5	08/28/2018	15:00	4	Groundwater		AY20820
MW-8	08/28/2018	15:53	4	Groundwater		AY20821

Relinquished By	Received By	Date/Time
		08/28/2018 17:00
		08/29/2018 14:21

SmarTroll ID **6496-34170-1-1**
Turbidity ID **4677-23343-4-2**

All metals and radiological bottles have pH < 2
Cooler Temp **1.1 degrees C**
Thermometer ID **5408-27568-2-2**
pH Strip ID **6803-35844-20-5**



Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **08/30/2018 13:00**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Barry Gypsum

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Dissolved Meta	500 mL	4	Alkalinity	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11	8/29/18	09:30	4	Groundwater		AY20986
MW-12	08/29/2018	10:36	4	Groundwater		AY20987
FB-2	08/29/2018	10:55	4	Field Blank		AY20988
MW-1	08/29/2018	12:20	4	Groundwater		AY20989
MW-1 DUP	08/29/2018	12:20	4	Sample Duplicate		AY20990
MW-2	08/29/2018	13:29	4	Groundwater		AY20991
MW-3	08/29/2018	14:23	4	Groundwater		AY20992
EB-1	08/29/2018	14:50	4	Equipment Blank		AY20993

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff DN: c=US, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, cn=US Date: 2018.08.30 13:14:30 -0500</small>	08/30/2018 13:14

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	4677-23343-4-2		
Cooler Temp	4.1 degrees C		
Thermometer ID	6603-34819-1-1		
		pH Strip ID	6803-35844-20-5



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **08/29/2018 14:00**

Requested Complete Date Site Representative Collector	Routine	Results To	Dustin Brooks, Greg Dyer
	Tamala Davis	Requested By	Greg Dyer
	Ben Rothschild	Location	Barry Gypsum

Bottles	1	Anions	250 mL	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	8/28/18	09:41	1	Groundwater		AY20822
MW-10	08/28/2018	10:37	1	Groundwater		AY20823
MW-10 DUP	08/28/2018	10:37	1	Sample Duplicate		AY20824
MW-7	08/28/2018	11:50	1	Groundwater		AY20825
MW-6	08/28/2018	12:55	1	Groundwater		AY20826
MW-4	08/28/2018	13:49	1	Groundwater		AY20827
FB-1	08/28/2018	14:10	1	Field Blank		AY20828
MW-5	08/28/2018	15:00	1	Groundwater		AY20829
MW-8	08/28/2018	15:53	1	Groundwater		AY20830

Relinquished By	Received By	Date/Time
		08/28/2018 17:00
		08/29/2018 14:15

SmarTroll ID **6496-34170-1-1**
Turbidity ID **4677-23343-4-2**

All metals and radiological bottles have pH < 2
Cooler Temp **1.1 degrees C**
Thermometer ID **5408-27568-2-2**
pH Strip ID **N/A**



Chain of Custody

Groundwater

APC General Testing Laboratory

 Field Complete
 Lab Complete

 Outside Lab

 Lab ETA 08/30/2018 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Barry Gypsum

Bottles	1	2	3	4	5	6	7	8
	Anions	250 mL	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-11	8/29/18	09:30	1	Groundwater		AY20994
MW-12	08/29/2018	10:36	1	Groundwater		AY20995
FB-2	08/29/2018	10:55	1	Field Blank		AY20996
MW-1	08/29/2018	12:20	1	Groundwater		AY20997
MW-1 DUP	08/29/2018	12:20	1	Sample Duplicate		AY20998
MW-2	08/29/2018	13:29	1	Groundwater		AY20999
MW-3	08/29/2018	14:23	1	Groundwater		AY21000
EB-1	08/29/2018	14:50	1	Equipment Blank		AY21001

Relinquished By	Received By	Date/Time
	Laura Midkiff <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.08.30 13:13:49 -0500</small>	08/30/2018 13:13

SmarTroll ID 6496-34170-1-1	All metals and radiological bottles have pH < 2 <input type="checkbox"/> Cooler Temp 4.1 degrees C Thermometer ID 6603-34819-1-1 pH Strip ID N/A
Turbidity ID 4677-23343-4-2	

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: 400-158703-1

TestAmerica Sample Delivery Group: Barry Gypsum 1161

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

9/18/2018 5:51:30 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Job ID: 400-158703-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-158703-1

General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 411787 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 411814 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method(s) SM 4500 SO4 E: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 411925 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.



Detection Summary

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Client Sample ID: AY20822 MW-9

Lab Sample ID: 400-158703-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.9	F1	2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20823 MW-10

Lab Sample ID: 400-158703-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20824 MW-10 DUP

Lab Sample ID: 400-158703-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20825 MW-7

Lab Sample ID: 400-158703-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AY20826 MW-6

Lab Sample ID: 400-158703-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20827 MW-4

Lab Sample ID: 400-158703-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20828 FB-1

Lab Sample ID: 400-158703-7

No Detections.

Client Sample ID: AY20829 MW-5

Lab Sample ID: 400-158703-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20830 MW-8

Lab Sample ID: 400-158703-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20994 MW-11

Lab Sample ID: 400-158703-10

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Client Sample ID: AY20994 MW-11 (Continued)

Lab Sample ID: 400-158703-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AY20995 MW-12

Lab Sample ID: 400-158703-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20996 FB-2

Lab Sample ID: 400-158703-12

No Detections.

Client Sample ID: AY20997 MW-1

Lab Sample ID: 400-158703-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	26		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20998 MW-1 DUP

Lab Sample ID: 400-158703-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	26		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY20999 MW-2

Lab Sample ID: 400-158703-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY21000 MW-3

Lab Sample ID: 400-158703-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AY21001 EB-1

Lab Sample ID: 400-158703-17

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 Barry

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	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 Barry

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-158703-1	AY20822 MW-9	Water	08/28/18 09:41	09/05/18 11:06
400-158703-2	AY20823 MW-10	Water	08/28/18 10:37	09/05/18 11:06
400-158703-3	AY20824 MW-10 DUP	Water	08/28/18 10:37	09/05/18 11:06
400-158703-4	AY20825 MW-7	Water	08/28/18 11:50	09/05/18 11:06
400-158703-5	AY20826 MW-6	Water	08/28/18 12:55	09/05/18 11:06
400-158703-6	AY20827 MW-4	Water	08/28/18 13:49	09/05/18 11:06
400-158703-7	AY20828 FB-1	Water	08/28/18 14:10	09/05/18 11:06
400-158703-8	AY20829 MW-5	Water	08/28/18 15:00	09/05/18 11:06
400-158703-9	AY20830 MW-8	Water	08/28/18 15:33	09/05/18 11:06
400-158703-10	AY20994 MW-11	Water	08/29/18 09:30	09/05/18 11:06
400-158703-11	AY20995 MW-12	Water	08/29/18 10:36	09/05/18 11:06
400-158703-12	AY20996 FB-2	Water	08/29/18 10:55	09/05/18 11:06
400-158703-13	AY20997 MW-1	Water	08/29/18 12:20	09/05/18 11:06
400-158703-14	AY20998 MW-1 DUP	Water	08/29/18 12:20	09/05/18 11:06
400-158703-15	AY20999 MW-2	Water	08/29/18 13:29	09/05/18 11:06
400-158703-16	AY21000 MW-3	Water	08/29/18 14:23	09/05/18 11:06
400-158703-17	AY21001 EB-1	Water	08/29/18 14:50	09/05/18 11:06

Client Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Client Sample ID: AY20822 MW-9

Date Collected: 08/28/18 09:41
 Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.9	F1	2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	5.1		5.0	1.4	mg/L			09/17/18 14:19	1

Client Sample ID: AY20823 MW-10

Date Collected: 08/28/18 10:37
 Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		2.0	1.4	mg/L			09/17/18 11:04	1
Sulfate	8.3		5.0	1.4	mg/L			09/17/18 14:23	1

Client Sample ID: AY20824 MW-10 DUP

Date Collected: 08/28/18 10:37
 Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	8.3		5.0	1.4	mg/L			09/17/18 14:23	1

Client Sample ID: AY20825 MW-7

Date Collected: 08/28/18 11:50
 Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:23	1

Client Sample ID: AY20826 MW-6

Date Collected: 08/28/18 12:55
 Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	5.4		5.0	1.4	mg/L			09/17/18 15:51	1

Client Sample ID: AY20827 MW-4

Date Collected: 08/28/18 13:49
 Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	5.4		5.0	1.4	mg/L			09/17/18 15:51	1

Client Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Client Sample ID: AY20828 FB-1

Lab Sample ID: 400-158703-7

Date Collected: 08/28/18 14:10

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 15:51	1

Client Sample ID: AY20829 MW-5

Lab Sample ID: 400-158703-8

Date Collected: 08/28/18 15:00

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	5.0		5.0	1.4	mg/L			09/17/18 15:57	1

Client Sample ID: AY20830 MW-8

Lab Sample ID: 400-158703-9

Date Collected: 08/28/18 15:33

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	1.4	mg/L			09/17/18 11:07	1
Sulfate	2.4	J	5.0	1.4	mg/L			09/17/18 15:57	1

Client Sample ID: AY20994 MW-11

Lab Sample ID: 400-158703-10

Date Collected: 08/29/18 09:30

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 16:02	1

Client Sample ID: AY20995 MW-12

Lab Sample ID: 400-158703-11

Date Collected: 08/29/18 10:36

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	2.2	J	5.0	1.4	mg/L			09/17/18 16:02	1

Client Sample ID: AY20996 FB-2

Lab Sample ID: 400-158703-12

Date Collected: 08/29/18 10:55

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 16:02	1

Client Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Client Sample ID: AY20997 MW-1

Lab Sample ID: 400-158703-13

Date Collected: 08/29/18 12:20

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	26		5.0	1.4	mg/L			09/17/18 16:02	1

Client Sample ID: AY20998 MW-1 DUP

Lab Sample ID: 400-158703-14

Date Collected: 08/29/18 12:20

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	26		5.0	1.4	mg/L			09/18/18 09:36	1

Client Sample ID: AY20999 MW-2

Lab Sample ID: 400-158703-15

Date Collected: 08/29/18 13:29

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	3.7	J	5.0	1.4	mg/L			09/18/18 09:29	1

Client Sample ID: AY21000 MW-3

Lab Sample ID: 400-158703-16

Date Collected: 08/29/18 14:23

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	1.4	mg/L			09/17/18 13:02	1
Sulfate	6.1		5.0	1.4	mg/L			09/18/18 09:29	1

Client Sample ID: AY21001 EB-1

Lab Sample ID: 400-158703-17

Date Collected: 08/29/18 14:50

Matrix: Water

Date Received: 09/05/18 11:06

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 13:09	1
Sulfate	<1.4		5.0	1.4	mg/L			09/18/18 09:36	1

Definitions/Glossary

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

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.
F2	MS/MSD RPD exceeds 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	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 Barry

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Client Sample ID: AY20822 MW-9

Date Collected: 08/28/18 09:41

Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-1

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	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:19	RRC	TAL PEN

Client Sample ID: AY20823 MW-10

Date Collected: 08/28/18 10:37

Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-2

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	411787	09/17/18 11:04	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

Client Sample ID: AY20824 MW-10 DUP

Date Collected: 08/28/18 10:37

Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-3

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	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

Client Sample ID: AY20825 MW-7

Date Collected: 08/28/18 11:50

Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-4

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	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

Client Sample ID: AY20826 MW-6

Date Collected: 08/28/18 12:55

Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-5

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	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:51	RRC	TAL PEN

Client Sample ID: AY20827 MW-4

Date Collected: 08/28/18 13:49

Date Received: 09/05/18 11:06

Lab Sample ID: 400-158703-6

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	411787	09/17/18 11:07	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Client Sample ID: AY20827 MW-4

Lab Sample ID: 400-158703-6

Date Collected: 08/28/18 13:49

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:51	RRC	TAL PEN

Client Sample ID: AY20828 FB-1

Lab Sample ID: 400-158703-7

Date Collected: 08/28/18 14:10

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:51	RRC	TAL PEN

Client Sample ID: AY20829 MW-5

Lab Sample ID: 400-158703-8

Date Collected: 08/28/18 15:00

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

Client Sample ID: AY20830 MW-8

Lab Sample ID: 400-158703-9

Date Collected: 08/28/18 15:33

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

Client Sample ID: AY20994 MW-11

Lab Sample ID: 400-158703-10

Date Collected: 08/29/18 09:30

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

Client Sample ID: AY20995 MW-12

Lab Sample ID: 400-158703-11

Date Collected: 08/29/18 10:36

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Client Sample ID: AY20996 FB-2

Lab Sample ID: 400-158703-12

Date Collected: 08/29/18 10:55

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

Client Sample ID: AY20997 MW-1

Lab Sample ID: 400-158703-13

Date Collected: 08/29/18 12:20

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

Client Sample ID: AY20998 MW-1 DUP

Lab Sample ID: 400-158703-14

Date Collected: 08/29/18 12:20

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411925	09/18/18 09:36	RRC	TAL PEN

Client Sample ID: AY20999 MW-2

Lab Sample ID: 400-158703-15

Date Collected: 08/29/18 13:29

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411925	09/18/18 09:29	RRC	TAL PEN

Client Sample ID: AY21000 MW-3

Lab Sample ID: 400-158703-16

Date Collected: 08/29/18 14:23

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411925	09/18/18 09:29	RRC	TAL PEN

Client Sample ID: AY21001 EB-1

Lab Sample ID: 400-158703-17

Date Collected: 08/29/18 14:50

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 13:09	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

Client Sample ID: AY21001 EB-1

Lab Sample ID: 400-158703-17

Date Collected: 08/29/18 14:50

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	411925	09/18/18 09:36	RRC	TAL PEN

Laboratory References:

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

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QC Association Summary

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

General Chemistry

Analysis Batch: 411757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-411757/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 411787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158703-1	AY20822 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-158703-2	AY20823 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-158703-3	AY20824 MW-10 DUP	Total/NA	Water	SM 4500 Cl- E	
400-158703-4	AY20825 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-158703-5	AY20826 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-158703-6	AY20827 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-158703-7	AY20828 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-158703-8	AY20829 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-158703-9	AY20830 MW-8	Total/NA	Water	SM 4500 Cl- E	
MB 400-411787/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-411787/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-158703-1 MS	AY20822 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-158703-1 MSD	AY20822 MW-9	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 411814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158703-10	AY20994 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-158703-11	AY20995 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-158703-12	AY20996 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-158703-13	AY20997 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-158703-14	AY20998 MW-1 DUP	Total/NA	Water	SM 4500 Cl- E	
400-158703-15	AY20999 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-158703-16	AY21000 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-158703-17	AY21001 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-411814/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-411814/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-411814/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-158792-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-158792-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 411826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158703-1	AY20822 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-158703-2	AY20823 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-158703-3	AY20824 MW-10 DUP	Total/NA	Water	SM 4500 SO4 E	
400-158703-4	AY20825 MW-7	Total/NA	Water	SM 4500 SO4 E	
MB 400-411826/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-411826/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-411826/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-158703-1 MS	AY20822 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-158703-1 MSD	AY20822 MW-9	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 411845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158703-5	AY20826 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-158703-6	AY20827 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-158703-7	AY20828 FB-1	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-158703-1
SDG: Barry Gypsum 1161

General Chemistry (Continued)

Analysis Batch: 411845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158703-8	AY20829 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-158703-9	AY20830 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-158703-10	AY20994 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-158703-11	AY20995 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-158703-12	AY20996 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-158703-13	AY20997 MW-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-411845/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-411845/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-411845/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-158703-5 MS	AY20826 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-158703-5 MSD	AY20826 MW-6	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 411925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158703-14	AY20998 MW-1 DUP	Total/NA	Water	SM 4500 SO4 E	
400-158703-15	AY20999 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-158703-16	AY21000 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-158703-17	AY21001 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-411925/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-411925/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-411925/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-158703-14 MS	AY20998 MW-1 DUP	Total/NA	Water	SM 4500 SO4 E	
400-158703-14 MSD	AY20998 MW-1 DUP	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MRL 400-411757/3
Matrix: Water
Analysis Batch: 411757

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.16		mg/L		108	50 - 150

Lab Sample ID: MB 400-411787/6
Matrix: Water
Analysis Batch: 411787

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 11:04	1

Lab Sample ID: LCS 400-411787/7
Matrix: Water
Analysis Batch: 411787

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: 400-158703-1 MS
Matrix: Water
Analysis Batch: 411787

Client Sample ID: AY20822 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.9	F1	10.0	9.43	F1	mg/L		-5	73 - 120

Lab Sample ID: 400-158703-1 MSD
Matrix: Water
Analysis Batch: 411787

Client Sample ID: AY20822 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	9.9	F1	10.0	9.15	F1	mg/L		-8	73 - 120	3	8

Lab Sample ID: MB 400-411814/6
Matrix: Water
Analysis Batch: 411814

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 12:59	1

Lab Sample ID: LCS 400-411814/7
Matrix: Water
Analysis Batch: 411814

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 400-411814/3
Matrix: Water
Analysis Batch: 411814

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.50	J	mg/L		75	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Lab Sample ID: 400-158792-D-1 MS
Matrix: Water
Analysis Batch: 411814

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.5	F1 F2	10.0	15.1		mg/L		116	73 - 120

Lab Sample ID: 400-158792-D-1 MSD
Matrix: Water
Analysis Batch: 411814

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.5	F1 F2	10.0	16.4	F1 F2	mg/L		130	73 - 120	9	8

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-411826/6
Matrix: Water
Analysis Batch: 411826

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			09/17/18 14:12	1

Lab Sample ID: LCS 400-411826/7
Matrix: Water
Analysis Batch: 411826

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.6		mg/L		97	90 - 110

Lab Sample ID: MRL 400-411826/3
Matrix: Water
Analysis Batch: 411826

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.63	J	mg/L		73	50 - 150

Lab Sample ID: 400-158703-1 MS
Matrix: Water
Analysis Batch: 411826

Client Sample ID: AY20822 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.1		10.0	16.6		mg/L		115	77 - 128

Lab Sample ID: 400-158703-1 MSD
Matrix: Water
Analysis Batch: 411826

Client Sample ID: AY20822 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	5.1		10.0	16.5		mg/L		114	77 - 128	0	5

QC Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

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

Lab Sample ID: MB 400-411845/6
Matrix: Water
Analysis Batch: 411845

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			09/17/18 15:51	1

Lab Sample ID: LCS 400-411845/7
Matrix: Water
Analysis Batch: 411845

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.9		mg/L		99	90 - 110

Lab Sample ID: MRL 400-411845/3
Matrix: Water
Analysis Batch: 411845

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.55	J	mg/L		71	50 - 150

Lab Sample ID: 400-158703-5 MS
Matrix: Water
Analysis Batch: 411845

Client Sample ID: AY20826 MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.4		10.0	16.6		mg/L		112	77 - 128

Lab Sample ID: 400-158703-5 MSD
Matrix: Water
Analysis Batch: 411845

Client Sample ID: AY20826 MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	5.4		10.0	16.5		mg/L		110	77 - 128	1	5

Lab Sample ID: MB 400-411925/6
Matrix: Water
Analysis Batch: 411925

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			09/18/18 09:29	1

Lab Sample ID: LCS 400-411925/7
Matrix: Water
Analysis Batch: 411925

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.9		mg/L		100	90 - 110

Lab Sample ID: MRL 400-411925/3
Matrix: Water
Analysis Batch: 411925

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	4.04	J	mg/L		81	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Lab Sample ID: 400-158703-14 MS
Matrix: Water
Analysis Batch: 411925

Client Sample ID: AY20998 MW-1 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	26		10.0	35.2		mg/L		95	77 - 128

Lab Sample ID: 400-158703-14 MSD
Matrix: Water
Analysis Batch: 411925

Client Sample ID: AY20998 MW-1 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	26		10.0	35.4		mg/L		96	77 - 128	0	5

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Chain of Custody Record

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State_Zip: AL, 35040 Phone: 205-664-6197 (Tel) Email: lbmicki@southernco.com Project Name: Barry Gypsum 1161 CCR Site:		Client Information Sampler: Ben Rothschild Client Contact: Laura Mickiff Lab PM: Whitmire, Cheryenne R E-Mail: cheryenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 1 of 2 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSO#: Total Number of Containers:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) SM 4500 Cl E SM 4500 SO4 E		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: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (w/water, Solid, Overhead, In-Freeze, AsAB) Preservation Code		Special Instructions/Note: MW-9 MW-10 MW-10 Dup (Sample Duplicate) MW-7 MW-6 MW-4 FB-1 (Field Blank) MW-5 MW-8		Special Instructions/Note: MW-9 MW-10 MW-10 Dup (Sample Duplicate) MW-7 MW-6 MW-4 FB-1 (Field Blank) MW-5 MW-8	
<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		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by: Relinquished by: Laura Mickiff Date: 9/4/2018, 1100 Company: APC		Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:	
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 4-5-18 1106 0.206 IR-8 TH-PEN	



Chain of Custody Record

Client Information Client Contact: Ben Rothschild Laura Mickliff Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State_Zip: AL, 35040 Phone: 205-664-6197 (Tel) Email: lbmickliff@southernco.com Project Name: CCR Site: Barry Gypsum 1161		Lab POC: Whitmire, Cheryenne R E-Mail: cheryenne.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 PO #: 40007143 WO #: / Project #: / SSO#: /		Analysis Requested									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Preservation Code	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	SM 4500 Cl E	SM 4500 SO4 E	Total Number of Containers	Special Instructions/Note:
AY20994	8/29/18	09:30	G	Water		X	X	X	X	1	MW-11
AY20995	8/29/18	10:36	G	Water		X	X	X	X	1	MW-12
AY20996	8/29/18	10:55	G	Water		X	X	X	X	1	FB-2 (Field Blank)
AY20997	8/29/18	12:20	G	Water		X	X	X	X	1	MW-1
AY20998	8/29/18	12:20	G	Water		X	X	X	X	1	MW-1 Dup (Sample Duplicate)
AY20999	8/29/18	13:29	G	Water		X	X	X	X	1	MW-2
AY21000	8/29/18	14:23	G	Water		X	X	X	X	1	MW-3
AY21001	8/29/18	14:50	G	Water		X	X	X	X	1	EB-1 (Equipment Blank)
<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: Laura Mickliff Date/Time: 9/4/2018, 1:00 Company: APC Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Colder Temperature(s) °C and Other Remarks: 0.2°C 18-8 Date/Time: 9-5-18 11:06 Received by: <i>J. Mickliff</i> Company: TA-TEA											



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-158703-1
SDG Number: Barry Gypsum 1161

Login Number: 158703
List Number: 1
Creator: Perez, Trina M

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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Barry

TestAmerica Job ID: 400-158703-1
 SDG: Barry Gypsum 1161

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18 *
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18 *
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-14	09-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

* 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



Sample Group : WMWBARG_1186

Project/Site : Barry Gypsum
Bucks, AL 36512


For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks, Greg Dyer, & Lauren Parker

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control:  **Laura Midkiff**
Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power
Company, ou=Environmental Affairs,
email=lbmidkif@southernco.com, c=US
Date: 2018.12.18 15:05:50 -06'00'

Supervision:  **T. Durant
Maske**

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama
Power Company, ou=Environmental
Affairs, email=tdmaske@southernco.com,
c=US
Date: 2018.12.18 16:45:13 -06'00'

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY27729

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.79	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.981	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0307	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0299	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.90	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	4.84	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0	mg/L

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-9

Laboratory ID Number: AY27729

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13	10
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720	
AY27738	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324	20
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817	20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98	20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927	20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76	20
AY27738	Mangnese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY27730

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.11	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.772	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0289	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0281	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.08	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	4.90	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	0.10	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.10	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-10

Laboratory ID Number: AY27730

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130		0.0077720
AY27738	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130		0.324 20
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130		0.817 20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130		2.98 20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130		0.927 20
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0					5.13 10
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130		1.76 20
AY27738	Mangnese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130		3.04 20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY27731

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.11	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.02	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0135	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0134	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.79	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.99	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	6.96	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			6.96	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-6

Laboratory ID Number: AY27731

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13 10
AY27738	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324 20
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817 20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98 20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927 20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76 20
AY27738	Mangnese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04 20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05				

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Laboratory certification ID: E571114

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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
 Lauren Parker

Customer Account: WMWBARG
Sample Date: 26-Nov-18
Customer ID:
Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY27732

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.66	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.896	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0119	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0121	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.50	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.13	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	0.42	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.42	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

Alabama Power General Test Laboratory
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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 26-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-4

Laboratory ID Number: AY27732

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817 20
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13 10
AY27738	Manganese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324 20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98 20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927 20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76 20
AY27738	Manganese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04 20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05				

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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Alabama Power General Test Laboratory
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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY27733

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.825	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.760	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00838	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00777	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.24	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.40	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	2.06	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			2.06	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7

Laboratory ID Number: AY27733

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	Limit					Limit	Limit	Rec	Limit		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13	10
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720	
AY27738	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324	20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98	20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927	20
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817	20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76	20
AY27738	Mangnese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					

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Alabama Power General Test Laboratory
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: AY27734

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.832	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.739	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00863	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00801	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.28	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.37	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	1.96	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			1.96	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: AY27734

Sample	Analysis	Units	MB			MS	MSD	LCS	LCS		Rec		Prec	
			Limit	Spike	MB				Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0			5.13	10	
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817	20
AY27738	Mangenes, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324	20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98	20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927	20
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720	
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76	20
AY27738	Mangenes, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY27735

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.821	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	J 0.0367	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.759	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0104	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0102	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	4.53	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.40	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	4.14	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			4.14	mg/L

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Expiration: June 30, 2019

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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-8

Laboratory ID Number: AY27735

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13	10
AY27738	Mangenes, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324	20
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720	
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817	20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76	20
AY27738	Mangenes, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98	20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY27736

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.26	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.791	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0105	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0109	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.71	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.23	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	0.80	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.80	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-5

Laboratory ID Number: AY27736

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			MB	Limit					Limit	Rec	Limit	Prec	
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720
AY27738	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324 20
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13 10
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817 20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76 20
AY27738	Mangnese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04 20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05				
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98 20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927 20

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Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY27737

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.64	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.896	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0151	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0150	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.77	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.24	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	1.08	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			1.08	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-3

Laboratory ID Number: AY27737

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13	10
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	10.0	8.5 to 11.5		98.0	70 to 130	0.0077720	
AY27738	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.0958	0.085 to 0.115		95.3	70 to 130	0.324	20
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.99	4.25 to 5.75		98.0	70 to 130	0.817	20
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.203	0.17 to 0.23		99.0	70 to 130	2.98	20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.97	4.25 to 5.75		97.8	70 to 130	0.927	20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.203	0.17 to 0.23		98.4	70 to 130	1.76	20
AY27738	Mangnese, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983		0.085 to 0.115		95.3	70 to 130	3.04	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGE B
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY27738

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.43	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 12/18/2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGE B
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AY27738

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit					Rec	Limit		
AY27741	Alkalinity, Total as CaCO3	mg/L				0.380	50.1	45.0 to 55.0			5.13	10
AY27738	Sodium, Total	mg/L	-0.00289	0.22	5.00	4.90	4.94	4.25 to 5.75	98.0	70 to 130	0.817	20
AY27738	Mangenes, Total	mg/L	0.0000144	0.0022	0.10	0.0953	0.0950	0.085 to 0.115	95.3	70 to 130	0.324	20
AY27738	Potassium, Total	mg/L	0.00249	0.0946	10.0	9.80	9.80	8.5 to 11.5	98.0	70 to 130	0.0077720	
AY27738	Iron, Dissolved	mg/L	0.000145	0.022	0.2	0.198	0.204	0.17 to 0.23	99.0	70 to 130	2.98	20
AY27738	Magnesium, Total	mg/L	0.00102	0.22	5.00	4.89	4.94	4.25 to 5.75	97.8	70 to 130	0.927	20
AY27738	Iron, Total	mg/L	-0.000210	0.022	0.2	0.197	0.200	0.17 to 0.23	98.4	70 to 130	1.76	20
AY27738	Mangenes, Dissolved	mg/L	0.00000432	0.005	0.10	0.0953	0.0983	0.085 to 0.115	95.3	70 to 130	3.04	20
AY27741	pH for Alkalinity	SU					6.99	6.95 to 7.05				

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY27739

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.68	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.981	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0274	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0272	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.83	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	4.96	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	0.28	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.28	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-2

Laboratory ID Number: AY27739

Sample	Analysis	Units	MB			MS	MSD	LCS	LCS		Rec		Prec	
			Limit	Spike	MB				Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0			5.13	10	
AY27741	Iron, Dissolved	mg/L	0.000585	0.022	0.2	1.44	1.39	0.202	0.17 to 0.23		115	70 to 130	3.61	20
AY27741	Potassium, Total	mg/L	0.00249	0.0946	10.0	10.6	10.5	10.0	8.5 to 11.5		99.0	70 to 130	0.950	20
AY27741	Sodium, Total	mg/L	-0.00471	0.22	5.00	8.76	8.78	4.98	4.25 to 5.75		99.1	70 to 130	0.263	20
AY27741	Magnesium, Total	mg/L	0.00185	0.22	5.00	8.30	8.32	4.90	4.25 to 5.75		98.5	70 to 130	0.280	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					
AY27741	Iron, Total	mg/L	0.000481	0.022	0.2	1.37	1.37	0.199	0.17 to 0.23		91.1	70 to 130	0.447	20
AY27741	Manganese, Dissolved	mg/L	0.00000581	0.005	0.10	0.437	0.440		0.085 to 0.115		95.3	70 to 130	0.648	20
AY27741	Manganese, Total	mg/L	0.0000144	0.0022	0.10	0.437	0.441	0.0958	0.085 to 0.115		92.7	70 to 130	0.905	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGFB
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY27740

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	5.49	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0	mg/L

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Expiration: June 30, 2019

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARGFB
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum Field Blank

Laboratory ID Number: AY27740

Sample	Analysis	Units	MB			LCS			Rec		Prec			
			MB	Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0		5.13	10		
AY27741	Sodium, Total	mg/L	-0.00471	0.22	5.00	8.76	8.78	4.98	4.25 to 5.75		99.1	70 to 130	0.263	20
AY27741	Iron, Dissolved	mg/L	0.000585	0.022	0.2	1.44	1.39	0.202	0.17 to 0.23		115	70 to 130	3.61	20
AY27741	Potassium, Total	mg/L	0.00249	0.0946	10.0	10.6	10.5	10.0	8.5 to 11.5		99.0	70 to 130	0.950	20
AY27741	Magnesium, Total	mg/L	0.00185	0.22	5.00	8.30	8.32	4.90	4.25 to 5.75		98.5	70 to 130	0.280	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					
AY27741	Iron, Total	mg/L	0.000481	0.022	0.2	1.37	1.37	0.199	0.17 to 0.23		91.1	70 to 130	0.447	20
AY27741	Manganese, Dissolved	mg/L	0.00000581	0.005	0.10	0.437	0.440		0.085 to 0.115		95.3	70 to 130	0.648	20
AY27741	Manganese, Total	mg/L	0.0000144	0.0022	0.10	0.437	0.441	0.0958	0.085 to 0.115		92.7	70 to 130	0.905	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY27741

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.37	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	1.21	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	1.18	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.678	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.342	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.344	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.80	mg/L
General Characteristics									
pH for Alkalinity	EMG	12/4/2018	SM 4500H+ B		1		4.00	4.92	SU
Alkalinity, Total as CaCO3	EMG	12/4/2018	SM 2320 B		1		0.1	0.40	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/4/2018	SM 4500CO2 D		1			0.40	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 Lauren Parker

Customer Account: WMWBARG
 Sample Date: 27-Nov-18
 Customer ID:
 Delivery Date: 29-Nov-18

Description: Barry Gypsum - MW-1

Laboratory ID Number: AY27741

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27741	Alkalinity, Total as CaCO3	mg/L					0.380	50.1	45.0 to 55.0				5.13	10
AY27741	Iron, Dissolved	mg/L	0.000585	0.022	0.2	1.44	1.39	0.202	0.17 to 0.23		115	70 to 130	3.61	20
AY27741	Potassium, Total	mg/L	0.00249	0.0946	10.0	10.6	10.5	10.0	8.5 to 11.5		99.0	70 to 130	0.950	20
AY27741	Sodium, Total	mg/L	-0.00471	0.22	5.00	8.76	8.78	4.98	4.25 to 5.75		99.1	70 to 130	0.263	20
AY27741	Iron, Total	mg/L	0.000481	0.022	0.2	1.37	1.37	0.199	0.17 to 0.23		91.1	70 to 130	0.447	20
AY27741	Mangnese, Dissolved	mg/L	0.00000581	0.005	0.10	0.437	0.440		0.085 to 0.115		95.3	70 to 130	0.648	20
AY27741	Mangnese, Total	mg/L	0.0000144	0.0022	0.10	0.437	0.441	0.0958	0.085 to 0.115		92.7	70 to 130	0.905	20
AY27741	Magnesium, Total	mg/L	0.00185	0.22	5.00	8.30	8.32	4.90	4.25 to 5.75		98.5	70 to 130	0.280	20
AY27741	pH for Alkalinity	SU						6.99	6.95 to 7.05					

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Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
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

Field Complete
 Lab Complete

Outside Lab

Lab ETA 11/28/2018 18:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Ben Rothschadl	Location	Barry Gypsum

Bottles	1	Metals	500 mL	3	Alkalinity	250 mL	5	N/A	N/A	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments Secured Groundwater Samples in GSC Building 8 Shipping Lab at 1830 on 11/28/2018.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	11/26/18	13:46	3	Groundwater		AY27729
MW-10	11/26/2018	14:38	3	Groundwater		AY27730
MW-6	11/26/2018	15:42	3	Groundwater		AY27731
MW-4	11/26/2018	16:41	3	Groundwater		AY27732
MW-7	11/27/2018	08:54	3	Groundwater		AY27733
MW-7 DUP	11/27/2018	08:54	3	Sample Duplicate		AY27734
MW-8	11/27/2018	10:06	3	Groundwater		AY27735
MW-5	11/27/2018	11:08	3	Groundwater		AY27736
MW-3	11/27/2018	12:11	3	Groundwater		AY27737
EB-1	11/27/2018	12:50	3	Equipment Blank		AY27738
MW-2	11/27/2018	13:34	3	Groundwater		AY27739
FB-1	11/27/2018	14:15	3	Field Blank		AY27740
MW-1	11/27/2018	15:07	3	Groundwater		AY27741

Relinquished By	Received By	Date/Time
Benjamin Tyler Rothschadl <small>Digitally signed by Benjamin Tyler Rothschadl Date: 2018.11.28 18:31:52 -06'00'</small>	Laura Midkiff <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.11.29 07:10:56 -06'00'</small>	11/29/2018 07:10

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-35564-10-1	Cooler Temp
Sample Event	1186	1.2 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		7095-38535-1-1 & 7114-38608-1-1

Appendix B

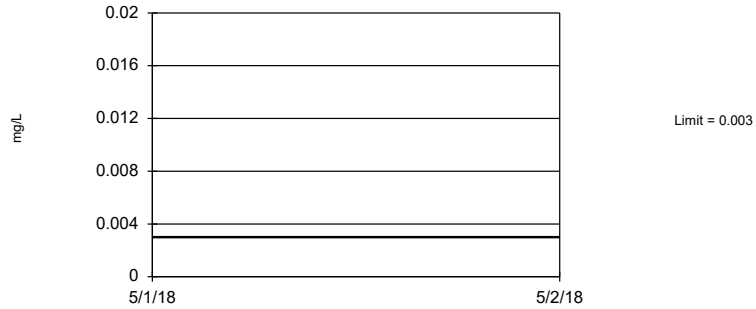
1st Semi-Annual

Upper Tolerance Limits - App IV

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/14/2019, 9:49 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	40	n/a	n/a	87.5	n/a	n/a	0.1285	NP Inter(NDs)
Arsenic (mg/L)	0.005	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Barium (mg/L)	0.1456	40	-2.381	0.2136	0	None	ln(x)	0.05	Inter
Beryllium (mg/L)	0.003	40	n/a	n/a	92.5	n/a	n/a	0.1285	NP Inter(NDs)
Boron (mg/L)	0.1	40	n/a	n/a	85	n/a	n/a	0.1285	NP Inter(NDs)
Cadmium (mg/L)	0.001	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Chromium (mg/L)	0.01	40	n/a	n/a	95	n/a	n/a	0.1285	NP Inter(NDs)
Cobalt (mg/L)	0.01	40	n/a	n/a	72.5	n/a	n/a	0.1285	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	3.688	40	1.019	0.2476	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normal...
Lead (mg/L)	0.005	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Lithium (mg/L)	0.05	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Mercury (mg/L)	0.0005	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Molybdenum (mg/L)	0.01	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Selenium (mg/L)	0.01	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Thallium (mg/L)	0.001	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 40 background values. 87.5% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Antimony Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

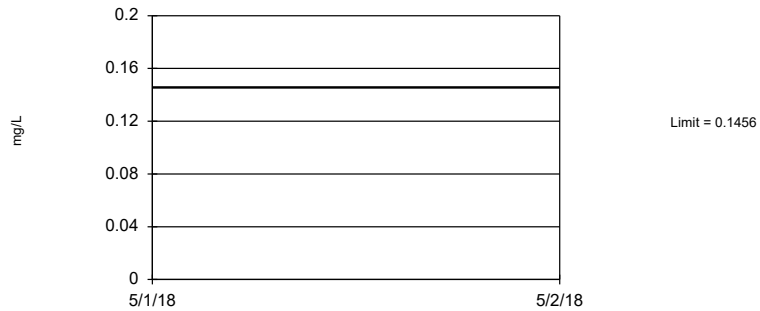
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Arsenic Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

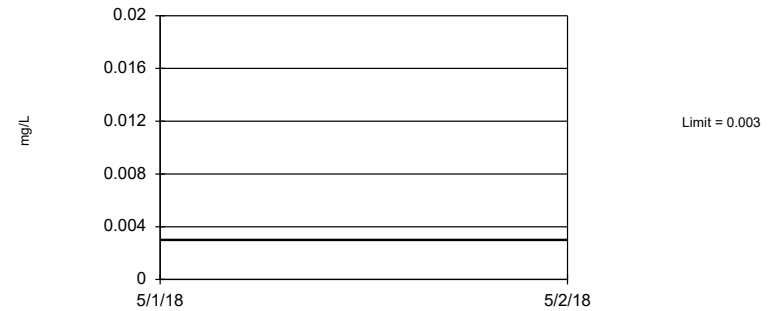
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation): Mean=-2.381, Std. Dev.=0.2136, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9278, critical = 0.919. Report alpha = 0.05.

Constituent: Barium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

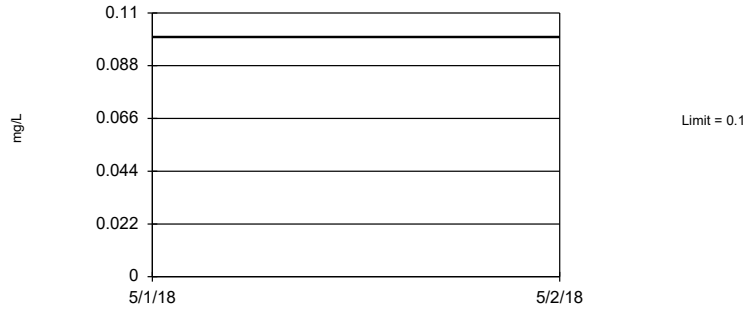
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 40 background values. 92.5% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Beryllium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

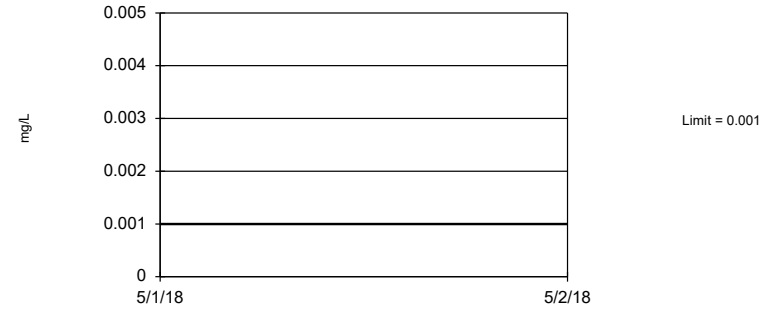
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 40 background values. 85% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Boron Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Cadmium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 40 background values. 95% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Chromium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

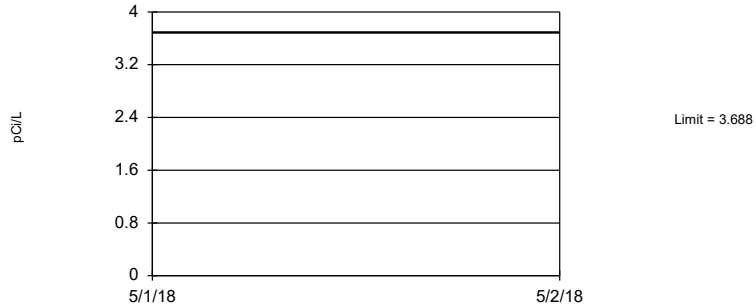
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 40 background values. 72.5% NDs. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Cobalt Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

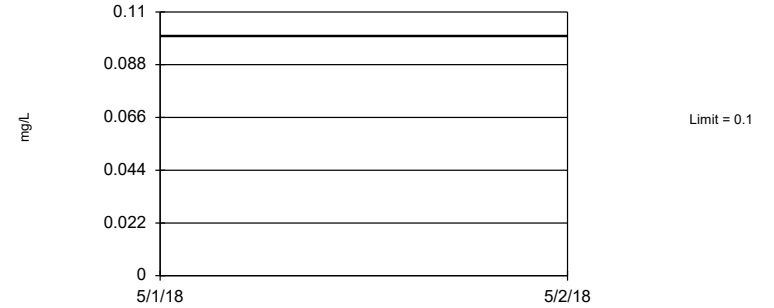
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on cube root transformation): Mean=1.019, Std. Dev.=0.2476, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9192, critical = 0.919. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 36.36% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Fluoride Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

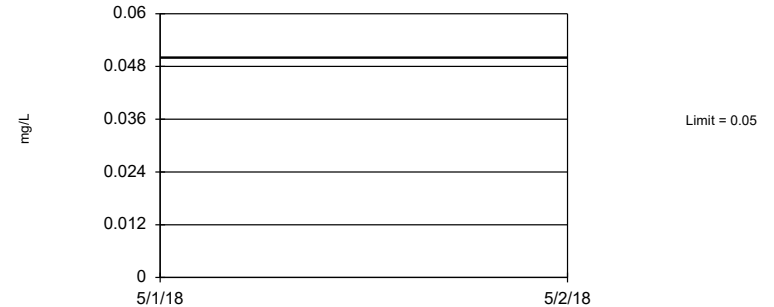
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Lead Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

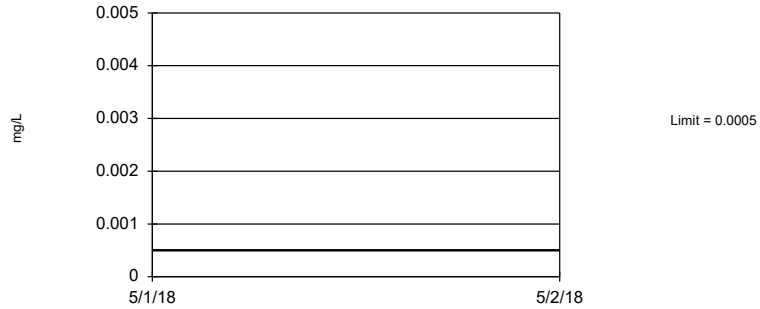
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Lithium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Mercury Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Molybdenum Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Selenium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 89.26% coverage at alpha=0.01; 92.77% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1285.

Constituent: Thallium Analysis Run 1/14/2019 9:48 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Confidence Intervals - All Results (No Significant Results)

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/31/2019, 11:00 AM

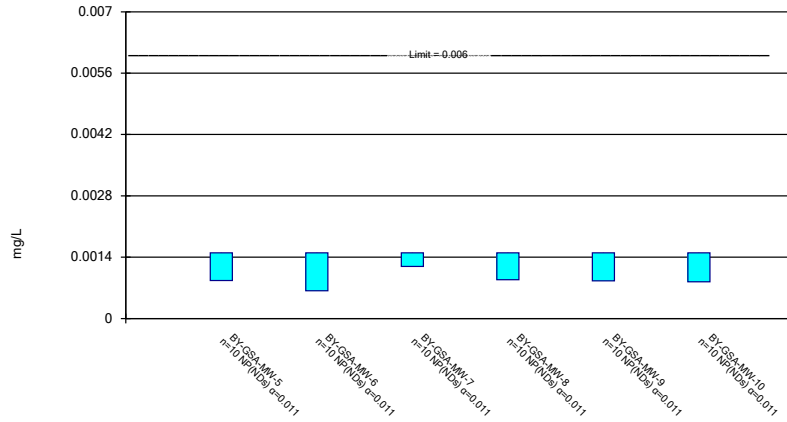
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-5	0.0015	0.000866	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-6	0.0015	0.000633	0.006	No	10	80	No	0.011	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-7	0.0015	0.00119	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-8	0.0015	0.000885	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-9	0.0015	0.000859	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-10	0.0015	0.000838	0.006	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-5	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-6	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-7	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-8	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Barium (mg/L)	BY-GSA-MW-5	0.109	0.0746	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.2091	0.08387	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.059	0.03909	2	No	10	0	ln(x)	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.03508	0.02742	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1232	0.0999	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-10	0.1291	0.1075	2	No	10	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-6	0.0015	0.000681	0.004	No	10	80	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-7	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-8	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-9	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-10	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Boron (mg/L)	BY-GSA-MW-5	0.1806	0.03853	4	No	10	0	sqrt(x)	0.01	Param.
Boron (mg/L)	BY-GSA-MW-6	0.623	0.04192	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-GSA-MW-7	0.05	0.0314	4	No	10	90	No	0.011	NP (NDs)
Boron (mg/L)	BY-GSA-MW-8	0.05	0.0207	4	No	10	90	No	0.011	NP (NDs)
Boron (mg/L)	BY-GSA-MW-9	0.05	0.0269	4	No	10	20	No	0.011	NP (normality)
Boron (mg/L)	BY-GSA-MW-10	0.05	0.0243	4	No	10	20	No	0.011	NP (Cohens/xfrm)
Cadmium (mg/L)	BY-GSA-MW-5	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-6	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-5	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-6	0.005	0.00209	0.1	No	10	60	No	0.011	NP (normality)
Chromium (mg/L)	BY-GSA-MW-7	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-8	0.005	0.00201	0.1	No	10	30	No	0.011	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-10	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-5	0.005	0.00278	0.01	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-6	0.005	0.00338	0.01	No	10	80	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-10	0.00272	0.00201	0.01	No	10	10	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	3	0.401	5	No	10	0	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	1.632	0.7952	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.805	0.3564	5	No	10	0	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.573	0.3879	5	No	10	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3	0.941	5	No	10	0	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.093	0.8156	5	No	10	0	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-5	0.05569	0.03631	4	No	11	54.55	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-6	0.138	0.049	4	No	11	54.55	No	0.006	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-7	0.05	0.018	4	No	11	54.55	No	0.006	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-8	0.05	0.019	4	No	11	54.55	No	0.006	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-9	0.07766	0.0538	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.08934	0.06139	4	No	11	0	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-5	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-GSA-MW-6	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-GSA-MW-7	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-GSA-MW-8	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-GSA-MW-9	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-5	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-6	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)

Confidence Intervals - All Results (No Significant Results)

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/31/2019, 11:00 AM

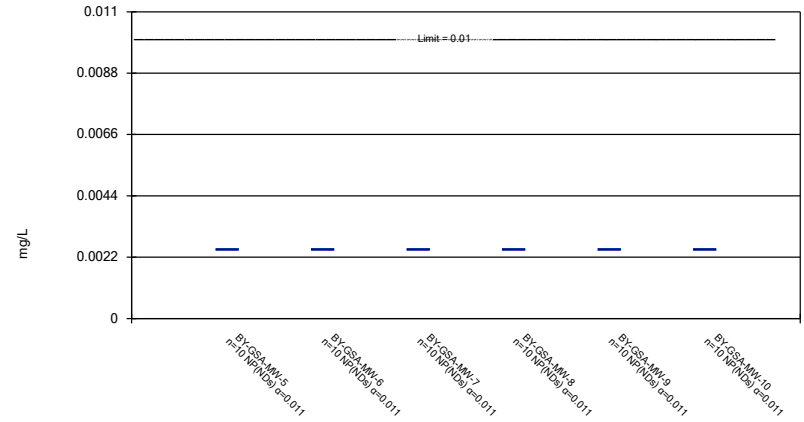
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BY-GSA-MW-7	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-8	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-9	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-10	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-5	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-7	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-8	0.00025	0.00025	0.002	No	10	90	No	0.011	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-9	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-10	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-6	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-7	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-9	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-10	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-5	0.007581	0.002359	0.05	No	10	10	sqrt(x)	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.0294	0.004415	0.05	No	10	0	sqrt(x)	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-5	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-6	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)

Non-Parametric Confidence Interval
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

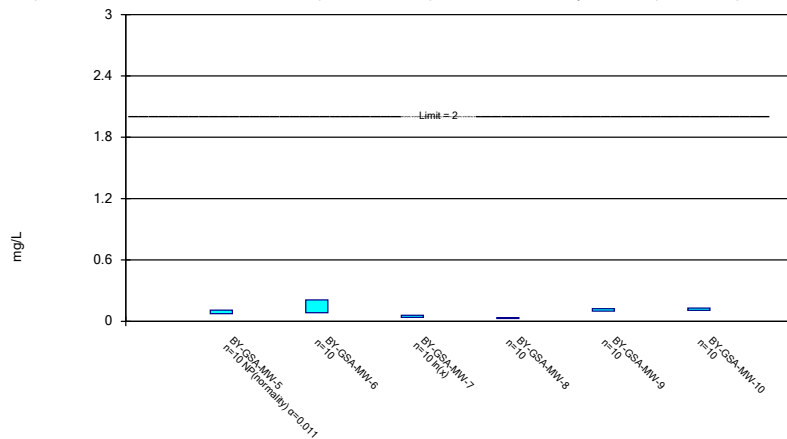
Non-Parametric Confidence Interval
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

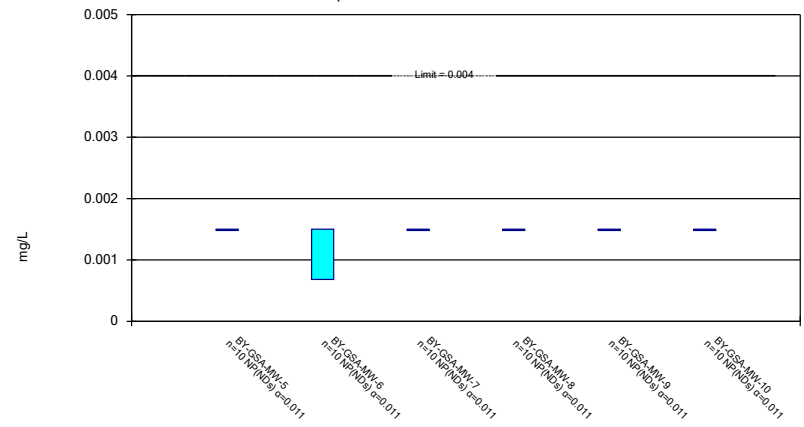
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

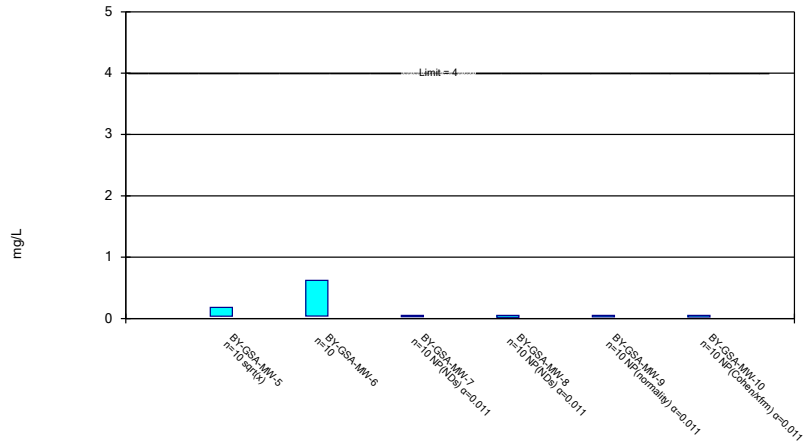
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

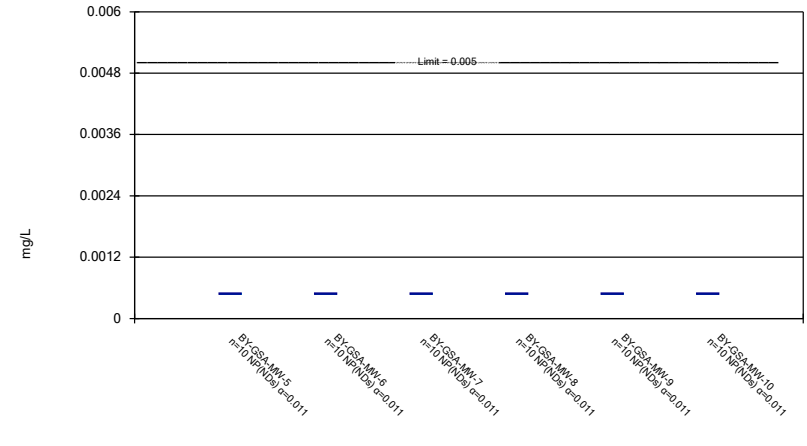
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Boron Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

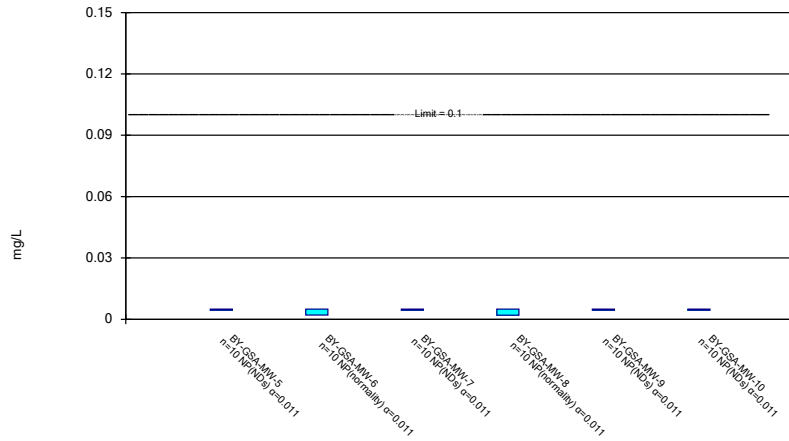
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

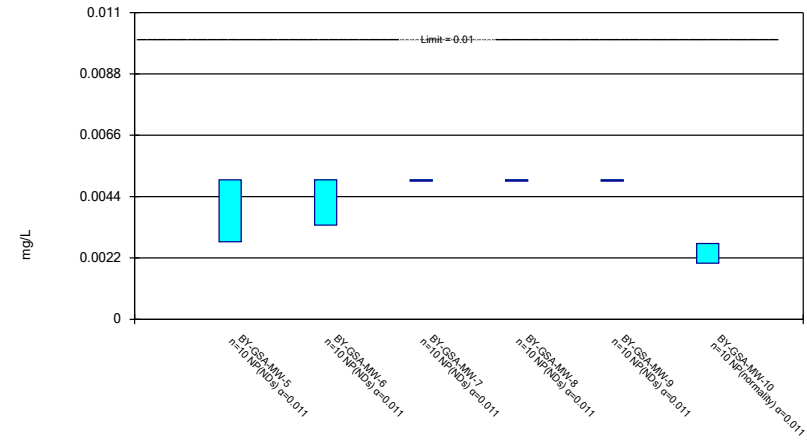
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

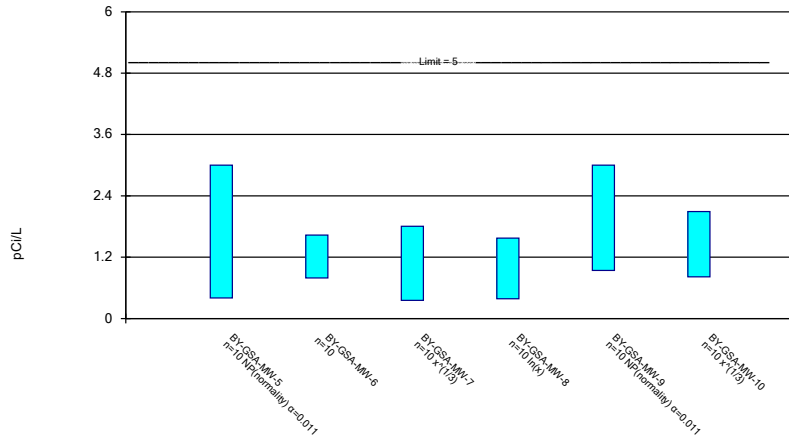
Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

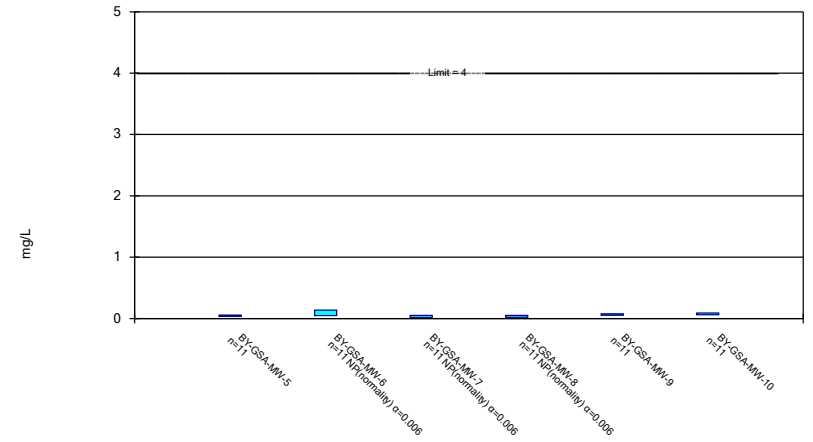
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

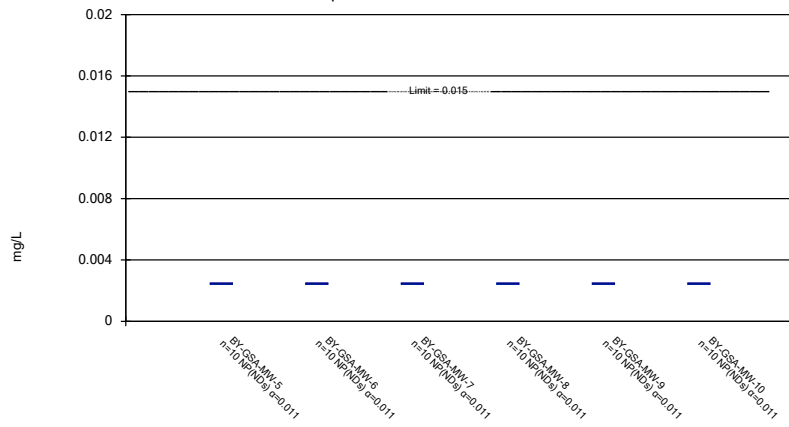
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

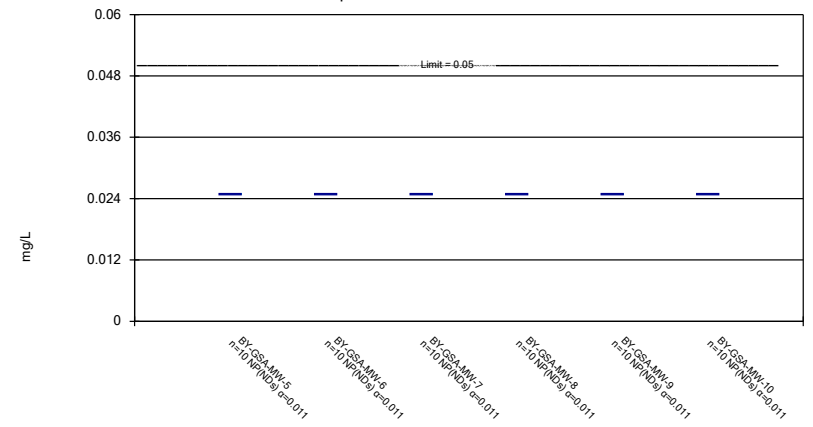
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

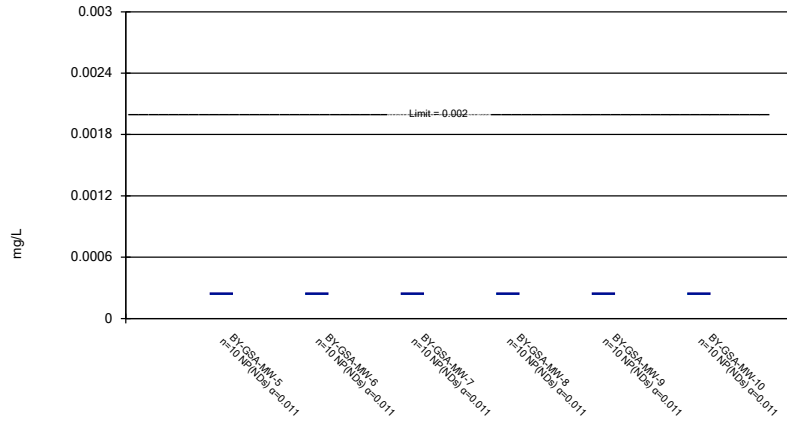
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



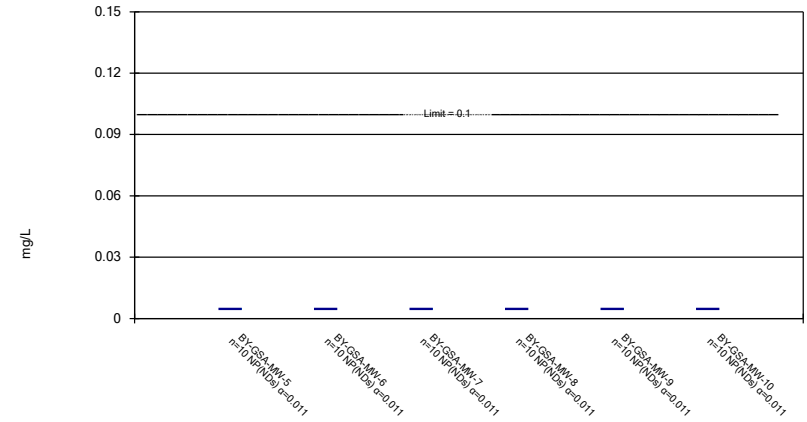
Constituent: Lithium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

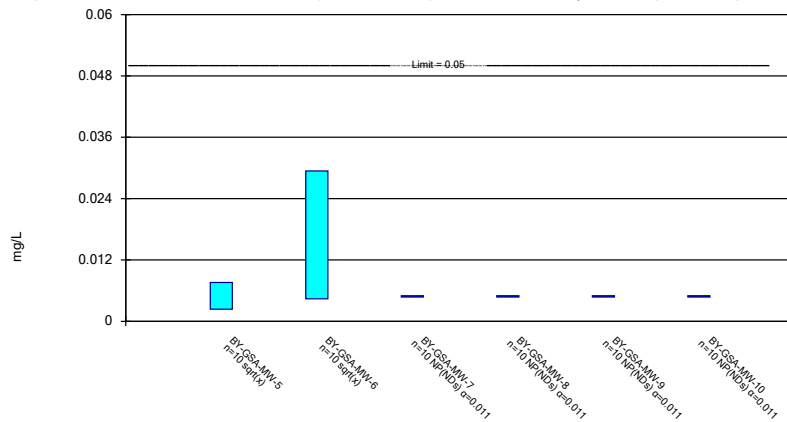
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

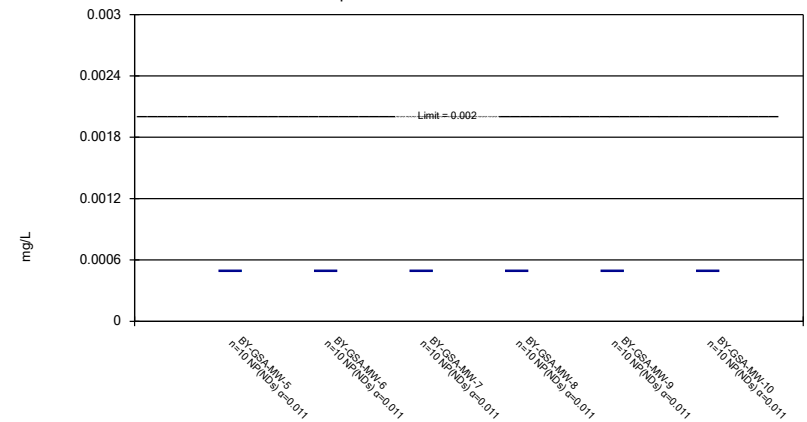
Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/31/2019 10:58 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

2nd Semi-Annual

Interwell Prediction Limit - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/9/2019, 11:50 AM

<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>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-GSA-MW-9	0.11	n/a	11/26/2018	0.139	Yes	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-GSA-MW-6	1.862	n/a	11/26/2018	3.41	Yes	44	0	No	0.001254	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-6	5.019	4.585	11/26/2018	5.58	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-7	5.019	4.585	11/27/2018	5.05	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-8	5.019	4.585	11/27/2018	5.06	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-9	5.019	4.585	11/26/2018	4.5	Yes	52	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-9	42.57	n/a	11/26/2018	48	Yes	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2

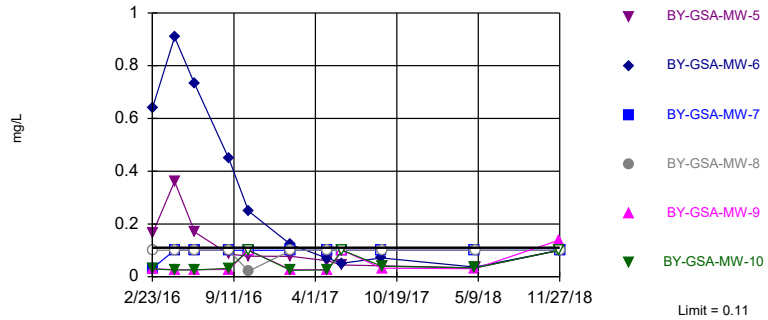
Interwell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/9/2019, 11:50 AM

<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>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-GSA-MW-5	0.11	n/a	11/27/2018	0.1ND	No	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.11	n/a	11/26/2018	0.1ND	No	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.11	n/a	11/27/2018	0.1ND	No	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.11	n/a	11/27/2018	0.1ND	No	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.11	n/a	11/26/2018	0.139	Yes	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-10	0.11	n/a	11/26/2018	0.1ND	No	44	84.09	n/a	0.000...	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-GSA-MW-5	1.862	n/a	11/27/2018	1.3	No	44	0	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-6	1.862	n/a	11/26/2018	3.41	Yes	44	0	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-7	1.862	n/a	11/27/2018	0.798	No	44	0	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-8	1.862	n/a	11/27/2018	0.743	No	44	0	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-9	1.862	n/a	11/26/2018	1.61	No	44	0	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-10	1.862	n/a	11/26/2018	0.922	No	44	0	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.1	n/a	11/27/2018	0.1ND	No	48	41.67	n/a	0.000818	NP Inter (normality) ...
Fluoride (mg/L)	BY-GSA-MW-6	0.1	n/a	11/26/2018	0.1ND	No	48	41.67	n/a	0.000818	NP Inter (normality) ...
Fluoride (mg/L)	BY-GSA-MW-7	0.1	n/a	11/27/2018	0.1ND	No	48	41.67	n/a	0.000818	NP Inter (normality) ...
Fluoride (mg/L)	BY-GSA-MW-8	0.1	n/a	11/27/2018	0.1ND	No	48	41.67	n/a	0.000818	NP Inter (normality) ...
Fluoride (mg/L)	BY-GSA-MW-9	0.1	n/a	11/26/2018	0.1ND	No	48	41.67	n/a	0.000818	NP Inter (normality) ...
Fluoride (mg/L)	BY-GSA-MW-10	0.1	n/a	11/26/2018	0.1ND	No	48	41.67	n/a	0.000818	NP Inter (normality) ...
pH (pH)	BY-GSA-MW-5	5.019	4.585	11/27/2018	4.92	No	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-6	5.019	4.585	11/26/2018	5.58	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-7	5.019	4.585	11/27/2018	5.05	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-8	5.019	4.585	11/27/2018	5.06	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-9	5.019	4.585	11/26/2018	4.5	Yes	52	0	No	0.000...	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-10	5.019	4.585	11/26/2018	4.65	No	52	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-5	42.57	n/a	11/27/2018	25ND	No	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-6	42.57	n/a	11/26/2018	38	No	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-7	42.57	n/a	11/27/2018	30.7	No	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-8	42.57	n/a	11/27/2018	35.3	No	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-9	42.57	n/a	11/26/2018	48	Yes	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-10	42.57	n/a	11/26/2018	31.3	No	44	15.91	sqrt(x)	0.001254	Param Inter 1 of 2

Exceeds Limit: BY-GSA-MW-9

Prediction Limit
Interwell Non-parametric

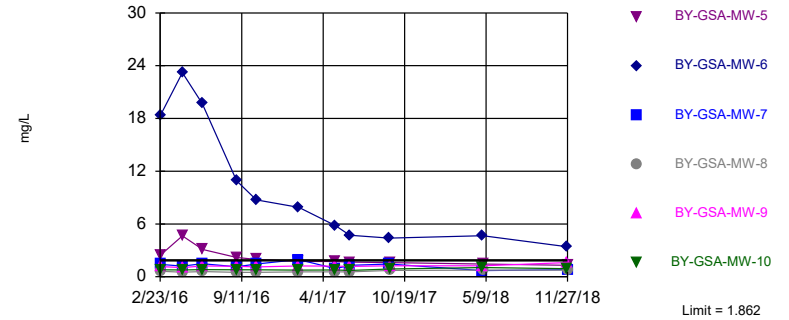


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 44 background values. 84.09% NDs. Annual per-constituent alpha = 0.01162. Individual comparison alpha = 0.0009736 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 1/9/2019 11:49 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit: BY-GSA-MW-6

Prediction Limit
Interwell Parametric

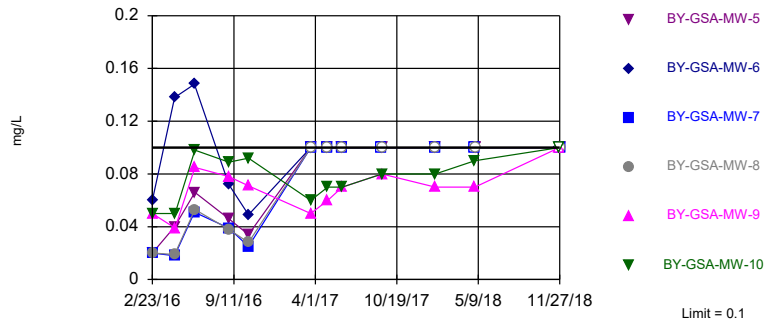


Background Data Summary: Mean=1.384, Std. Dev.=0.2494, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9531, critical = 0.924. Kappa = 1.919 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium Analysis Run 1/9/2019 11:49 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Interwell Non-parametric

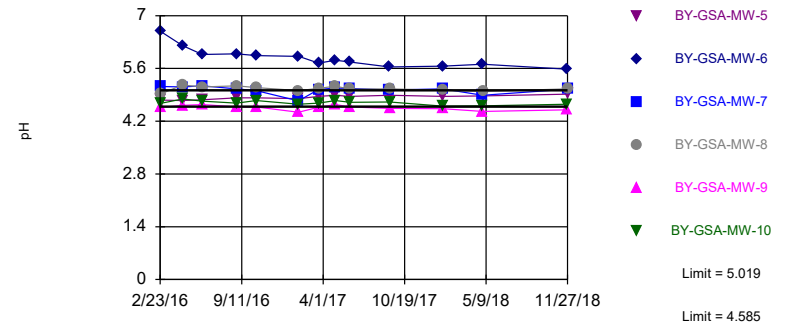


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 48 background values. 41.67% NDs. Annual per-constituent alpha = 0.009772. Individual comparison alpha = 0.000818 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 1/9/2019 11:49 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limits: BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9

Prediction Limit
Interwell Parametric

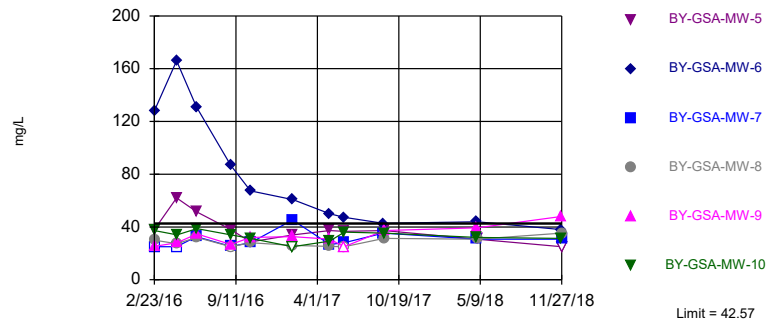


Background Data Summary: Mean=4.802, Std. Dev.=0.1145, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9756, critical = 0.937. Kappa = 1.898 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Comparing 6 points to limit.

Constituent: pH Analysis Run 1/9/2019 11:49 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit: BY-GSA-MW-9

Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=5.482, Std. Dev.=0.543, n=44, 15.91% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9339, critical = 0.924. Kappa = 1.919 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 1/9/2019 11:49 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Intrawell Prediction Limit - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/9/2019, 11:53 AM

<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>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	BY-GSA-MW-1	4.5	n/a	11/27/2018	4.7	Yes	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-9	7.734	n/a	11/26/2018	11	Yes	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-1	11.7	n/a	11/27/2018	22	Yes	8	0	No	0.001254	Param Intra 1 of 2

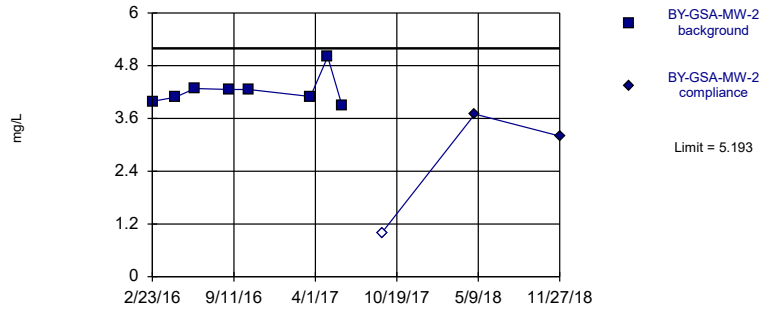
Intrawell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/9/2019, 11:53 AM

<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>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	BY-GSA-MW-2	5.193	n/a	11/27/2018	3.2	No	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-3	4.6	n/a	11/27/2018	3.5	No	8	0	n/a	0.02144	NP Intra (normality) ...
Chloride (mg/L)	BY-GSA-MW-4	4.808	n/a	11/26/2018	3.6	No	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-1	4.5	n/a	11/27/2018	4.7	Yes	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-5	4.999	n/a	11/27/2018	3.7	No	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-6	7.813	n/a	11/26/2018	3.5	No	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-7	9.416	n/a	11/27/2018	4.3	No	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-8	6.035	n/a	11/27/2018	4.9	No	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-9	7.734	n/a	11/26/2018	11	Yes	8	0	No	0.001254	Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-10	4.781	n/a	11/26/2018	3.8	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-2	10.38	n/a	11/27/2018	2.5ND	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.697	n/a	11/27/2018	6.5	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-4	8.385	n/a	11/26/2018	5.1	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-1	11.7	n/a	11/27/2018	22	Yes	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	33.46	n/a	11/27/2018	5.5	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	95.72	n/a	11/26/2018	7.4	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	4.709	n/a	11/27/2018	2.5ND	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.432	n/a	11/27/2018	2.5ND	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	10.51	n/a	11/26/2018	7.3	No	8	0	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.32	n/a	11/26/2018	8.3	No	8	0	No	0.001254	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

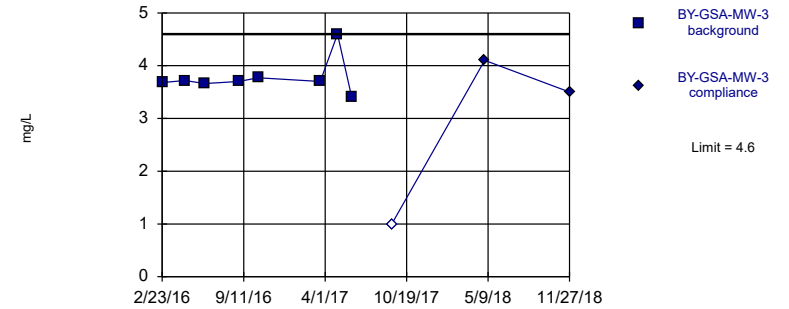


Background Data Summary: Mean=4.234, Std. Dev.=0.3387, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7927, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Non-parametric

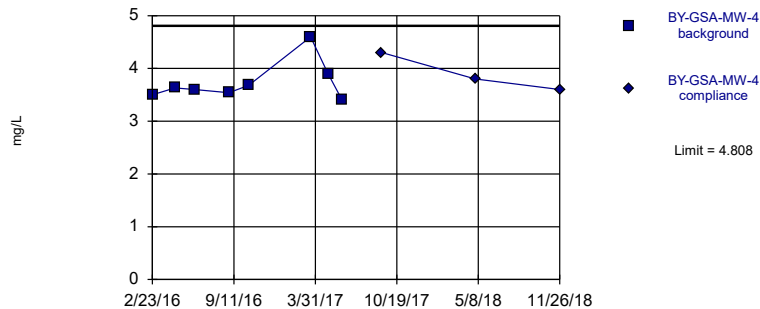


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

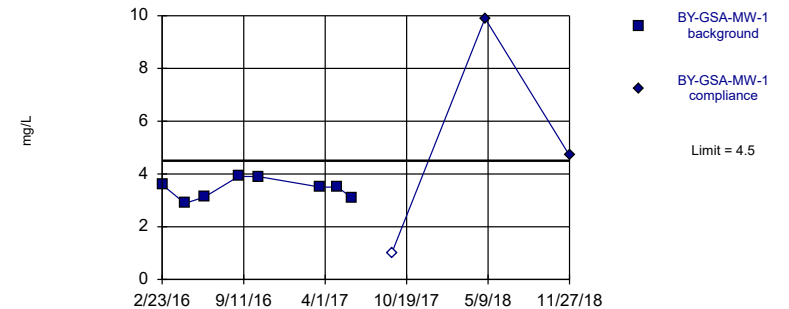


Background Data Summary: Mean=3.731, Std. Dev.=0.3804, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7625, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

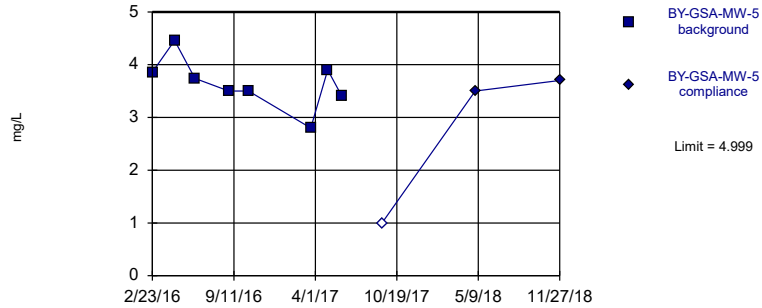


Background Data Summary: Mean=3.439, Std. Dev.=0.3747, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9229, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

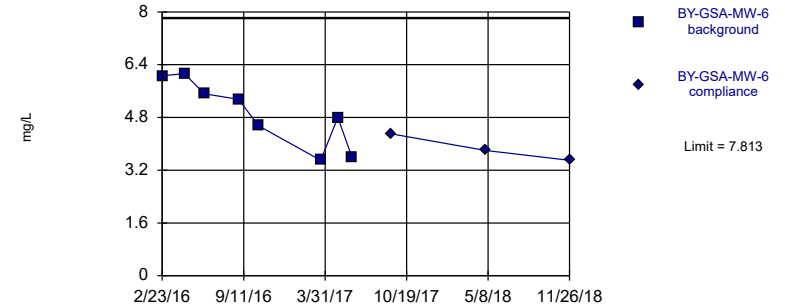


Background Data Summary: Mean=3.645, Std. Dev.=0.4782, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9592, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

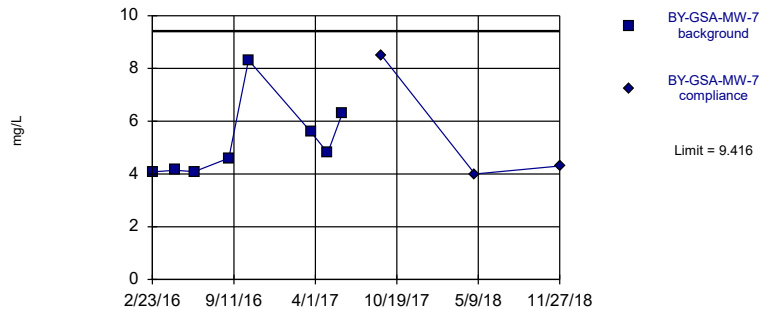


Background Data Summary: Mean=4.939, Std. Dev.=1.015, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9153, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

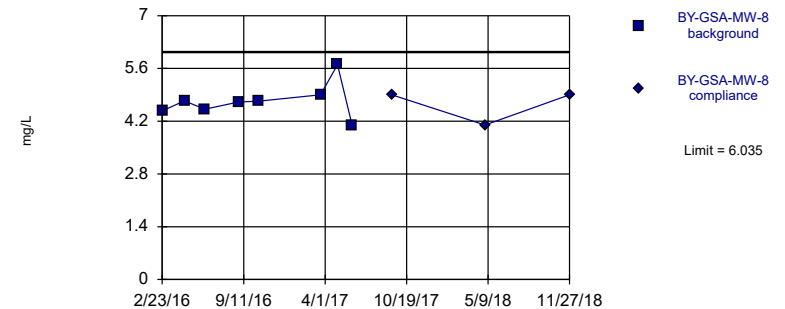


Background Data Summary: Mean=5.241, Std. Dev.=1.475, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8191, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

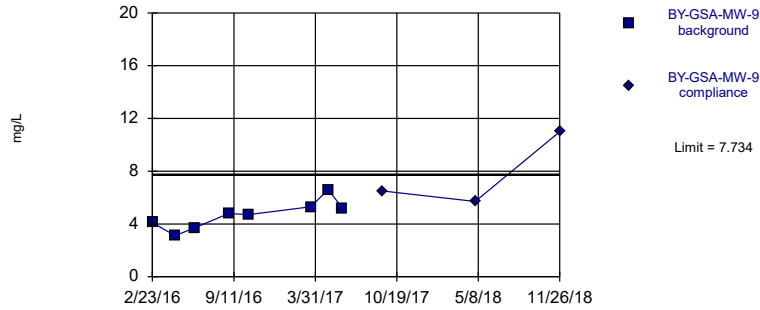


Background Data Summary: Mean=4.734, Std. Dev.=0.4596, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8848, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

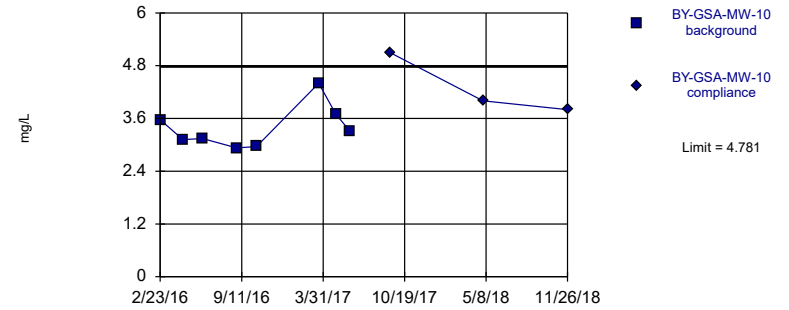


Background Data Summary: Mean=4.693, Std. Dev.=1.074, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9767, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

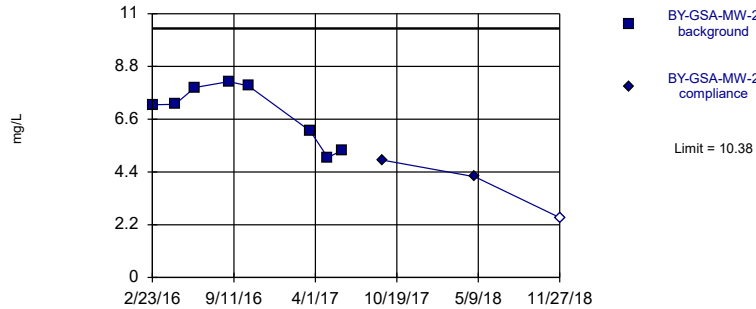


Background Data Summary: Mean=3.39, Std. Dev.=0.4912, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8688, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

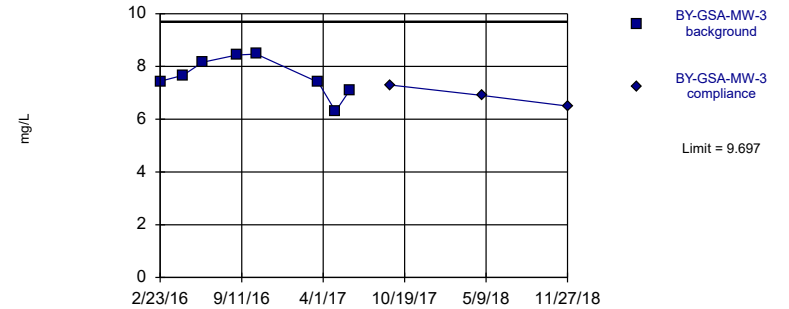


Background Data Summary: Mean=6.863, Std. Dev.=1.244, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8803, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

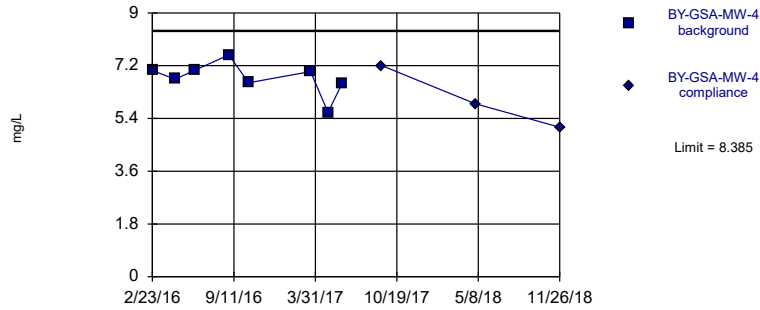


Background Data Summary: Mean=7.62, Std. Dev.=0.7334, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9376, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

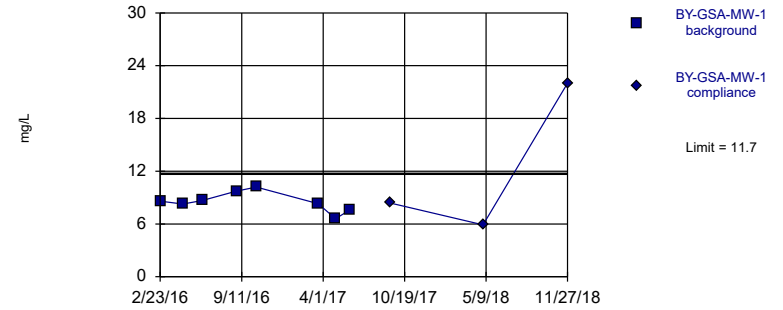


Background Data Summary: Mean=6.776, Std. Dev.=0.5682, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8914, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

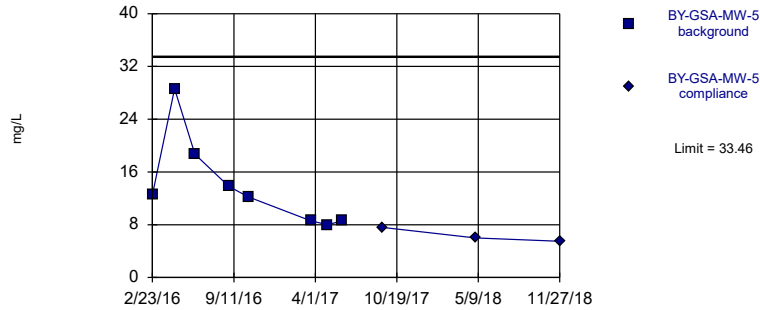


Background Data Summary: Mean=8.495, Std. Dev.=1.132, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9632, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

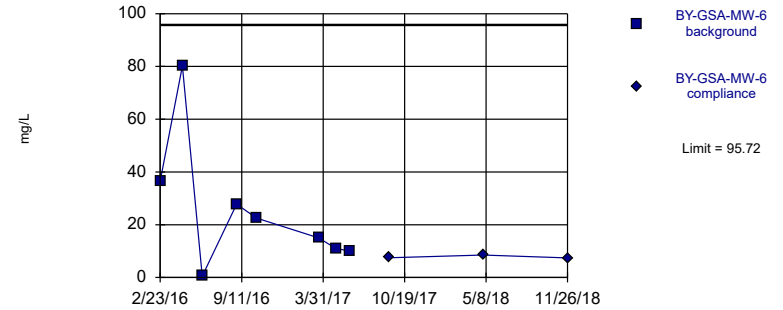


Background Data Summary: Mean=13.88, Std. Dev.=6.918, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8212, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric



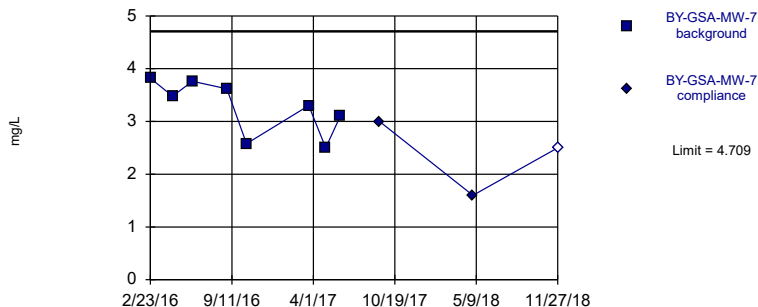
Background Data Summary: Mean=25.44, Std. Dev.=24.82, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8338, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit

Intrawell Parametric



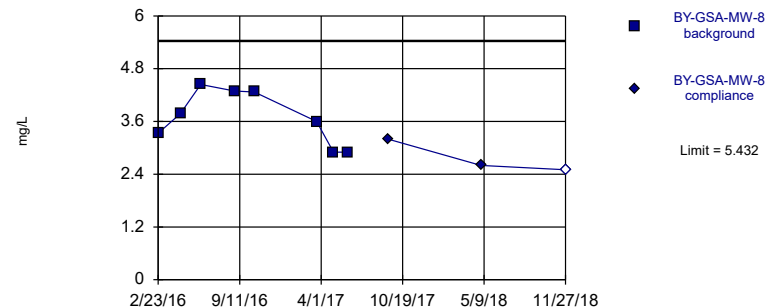
Background Data Summary: Mean=3.27, Std. Dev.=0.5082, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8962, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit

Intrawell Parametric



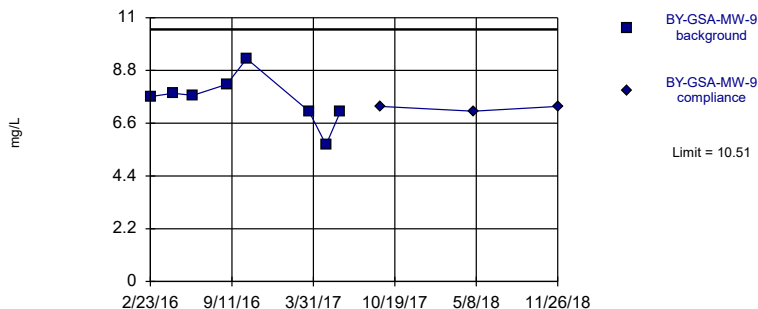
Background Data Summary: Mean=3.689, Std. Dev.=0.6156, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit

Intrawell Parametric



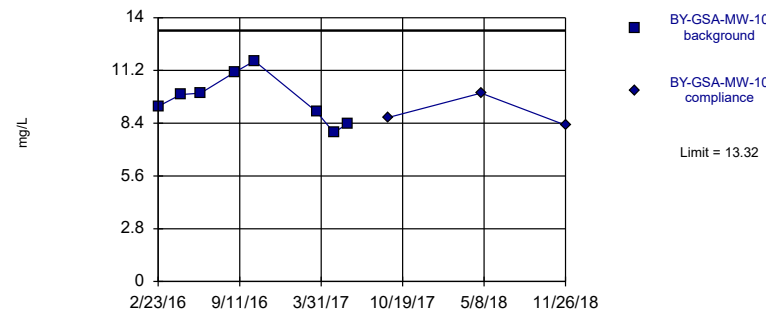
Background Data Summary: Mean=7.591, Std. Dev.=1.032, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.664, Std. Dev.=1.292, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.969, critical = 0.749. Kappa = 2.831 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 1/9/2019 11:51 AM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/9/2019, 12:04 PM

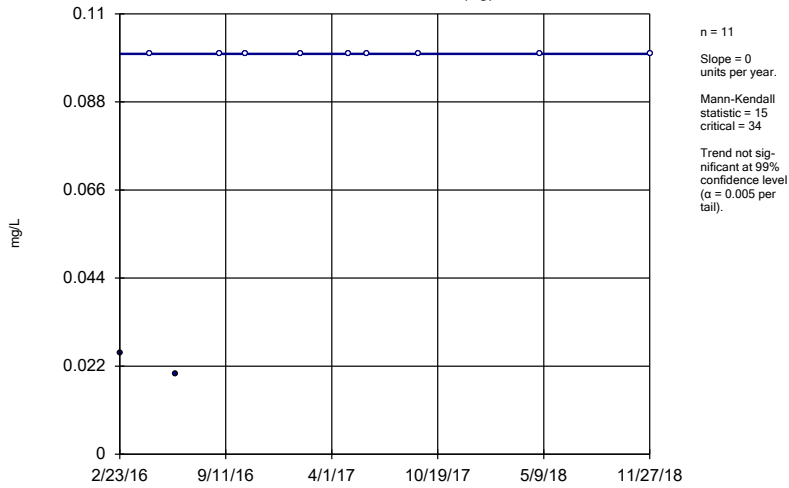
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BY-GSA-MW-6	-7.583	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-9	1.98	39	34	Yes	11	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-6	-0.2494	-66	-43	Yes	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (Bg)	-1.81	-35	-34	Yes	11	9.091	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-1 (Bg)	6.083	35	34	Yes	11	9.091	n/a	n/a	0.01	NP

Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/9/2019, 12:04 PM

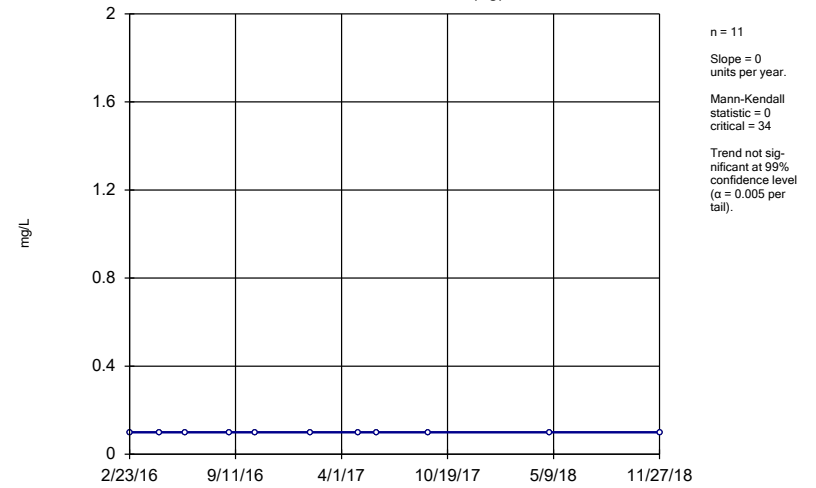
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-GSA-MW-2 (Bg)	0	15	34	No	11	81.82	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (Bg)	0	0	34	No	11	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (Bg)	0	11	34	No	11	81.82	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-1 (Bg)	0	11	34	No	11	72.73	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-9	0.001798	21	34	No	11	18.18	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-2 (Bg)	0.178	31	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-3 (Bg)	-0.00...	-2	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-4 (Bg)	0.06311	15	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (Bg)	0	0	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-6	-7.583	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-2 (Bg)	-0.2891	-20	-34	No	11	9.091	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-3 (Bg)	-0.05489	-4	-34	No	11	9.091	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (Bg)	0.1003	12	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-1 (Bg)	0.3792	6	34	No	11	9.091	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-9	1.98	39	34	Yes	11	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-2 (Bg)	-0.06343	-35	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-3 (Bg)	-0.01912	-19	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-4 (Bg)	-0.00...	-1	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (Bg)	0.03997	21	43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-6	-0.2494	-66	-43	Yes	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-7	-0.03441	-29	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-8	-0.04596	-25	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-9	-0.04052	-32	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (Bg)	-1.81	-35	-34	Yes	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-3 (Bg)	-0.4484	-25	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-4 (Bg)	-0.5214	-24	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-1 (Bg)	-0.2707	-5	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-2 (Bg)	5.065	23	34	No	11	18.18	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-3 (Bg)	0.6186	1	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-4 (Bg)	1.659	25	34	No	11	36.36	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-1 (Bg)	6.083	35	34	Yes	11	9.091	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-9	5.998	27	34	No	11	9.091	n/a	n/a	0.01	NP

Sen's Slope Estimator BY-GSA-MW-2 (Bg)



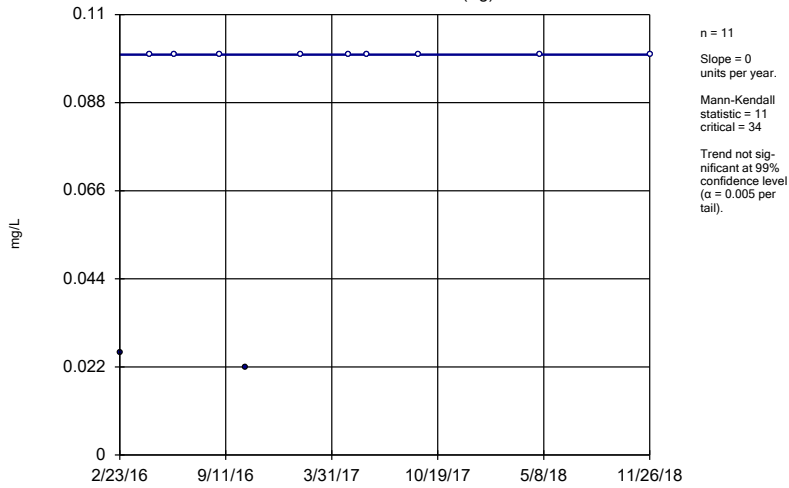
Constituent: Boron Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-3 (Bg)



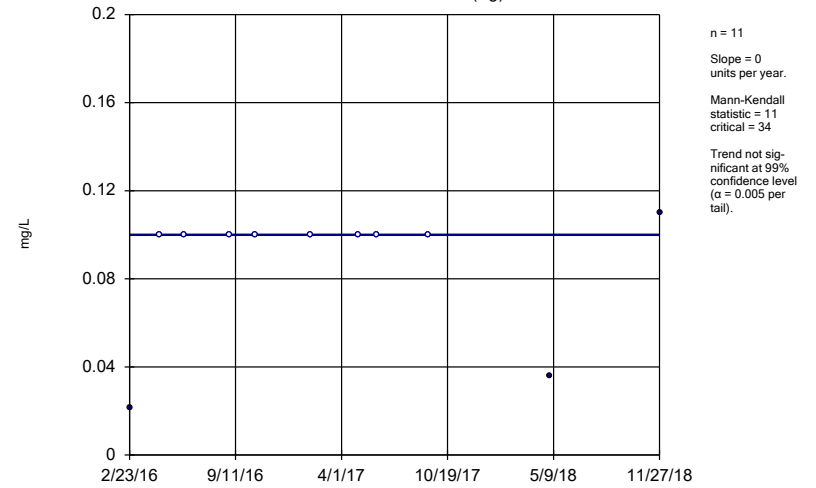
Constituent: Boron Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-4 (Bg)



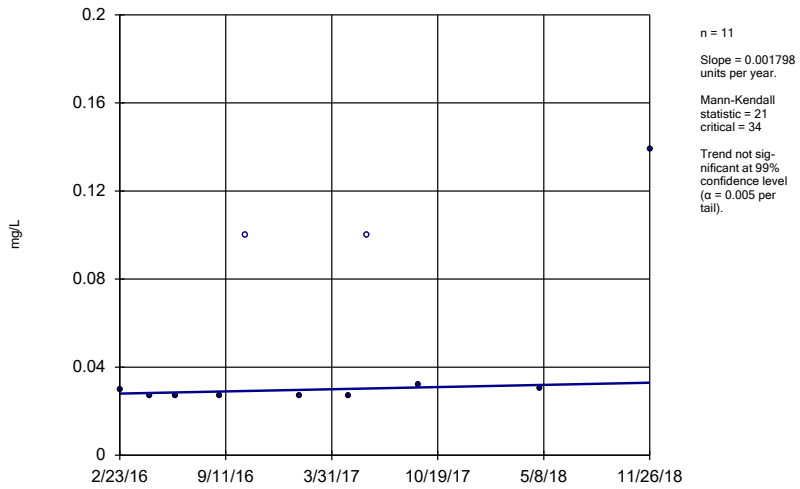
Constituent: Boron Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-1 (Bg)



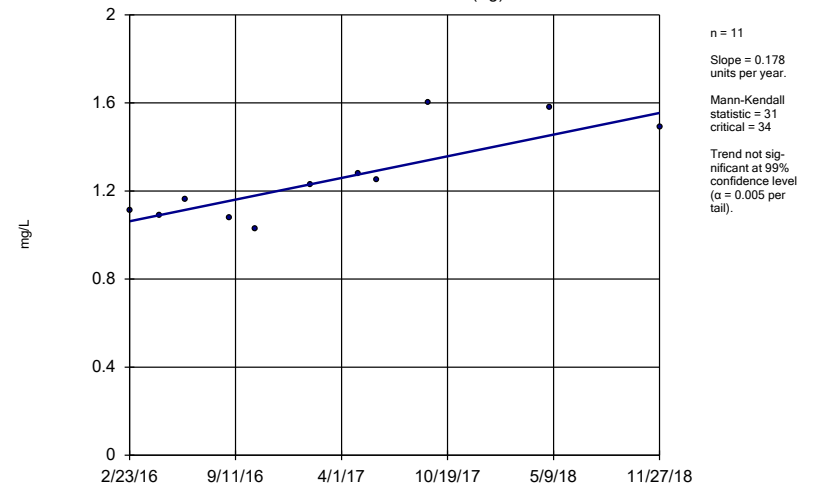
Constituent: Boron Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-9



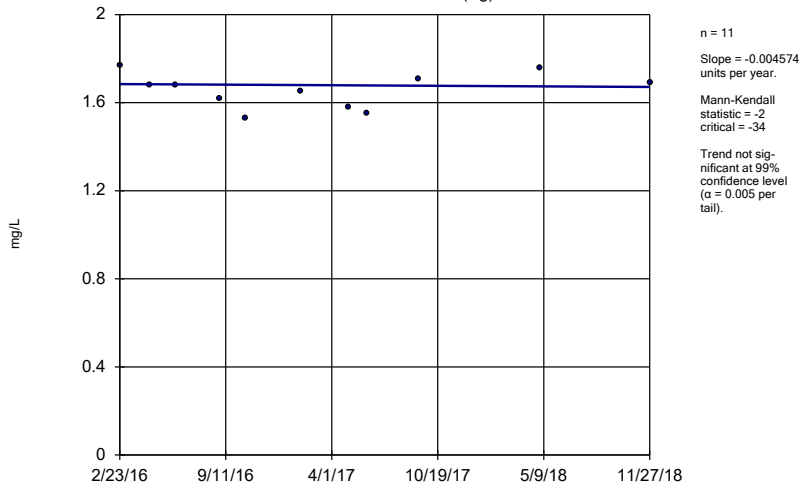
Constituent: Boron Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-2 (Bg)



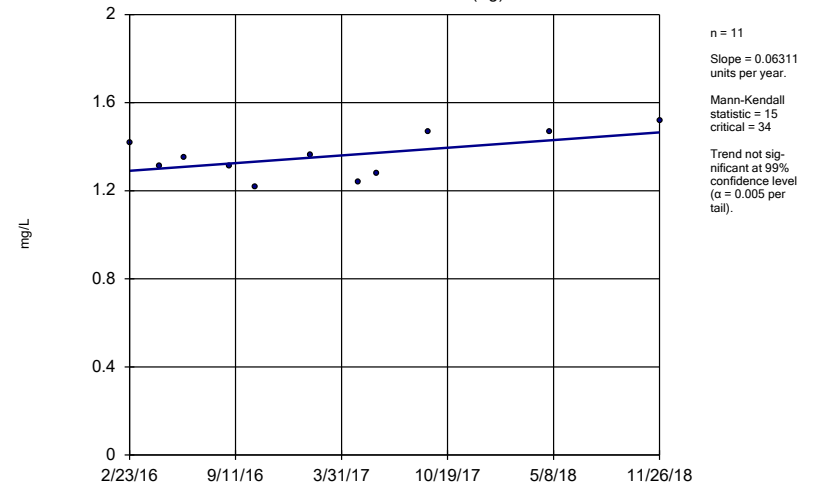
Constituent: Calcium Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-3 (Bg)



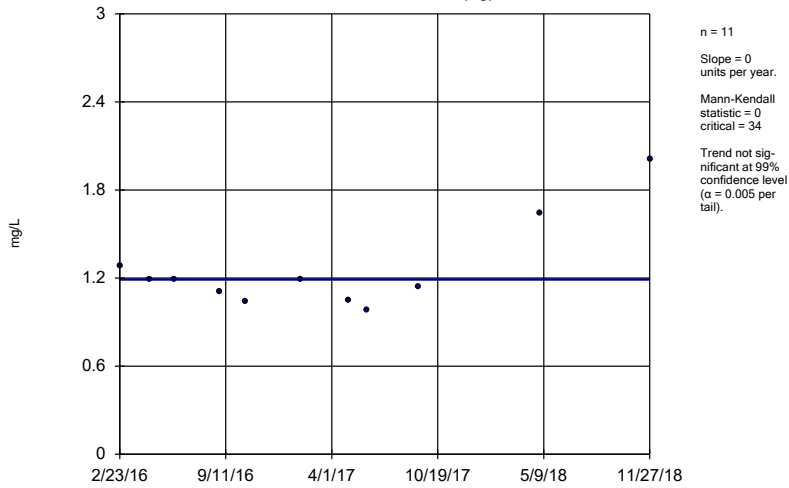
Constituent: Calcium Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-4 (Bg)



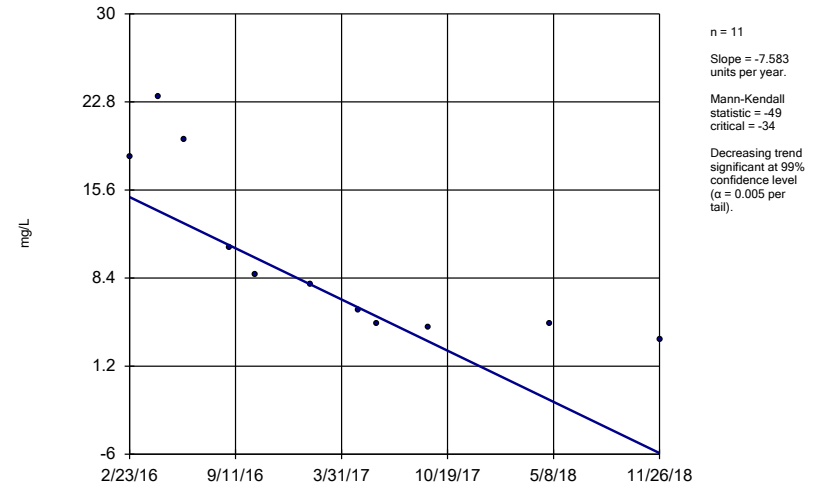
Constituent: Calcium Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-1 (Bg)



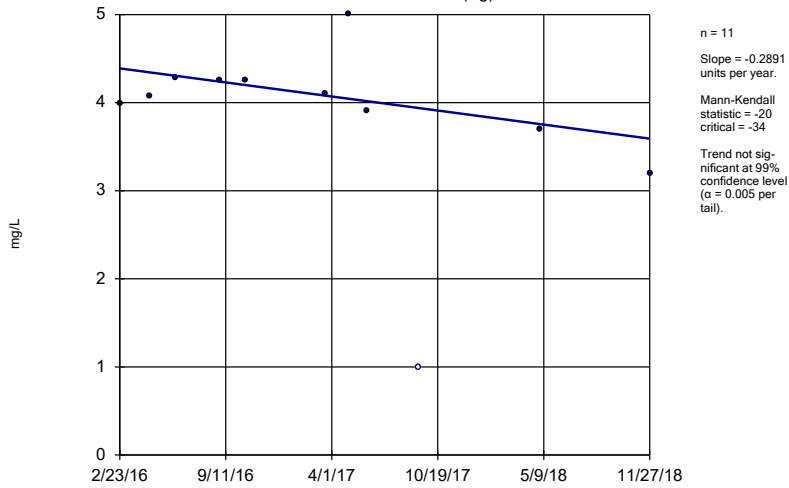
Constituent: Calcium Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-6



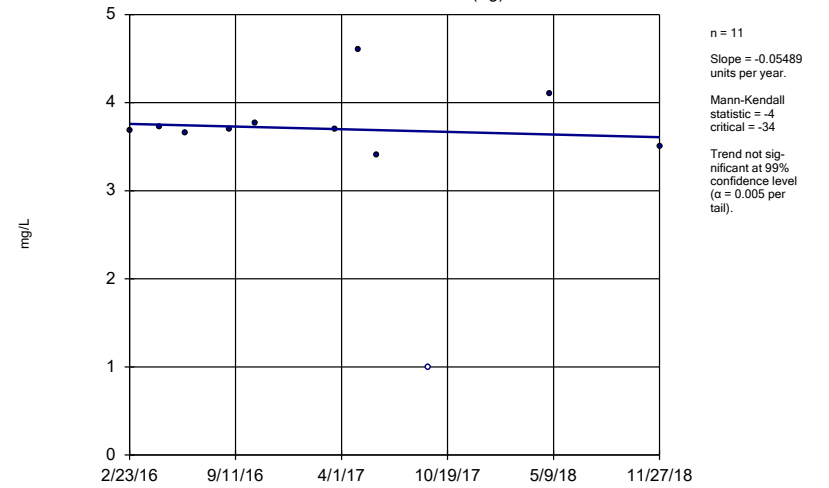
Constituent: Calcium Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-2 (Bg)



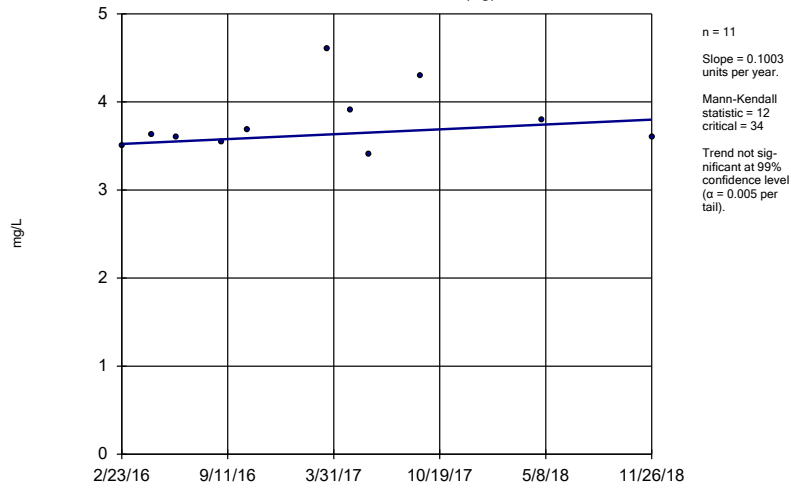
Constituent: Chloride Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-3 (Bg)



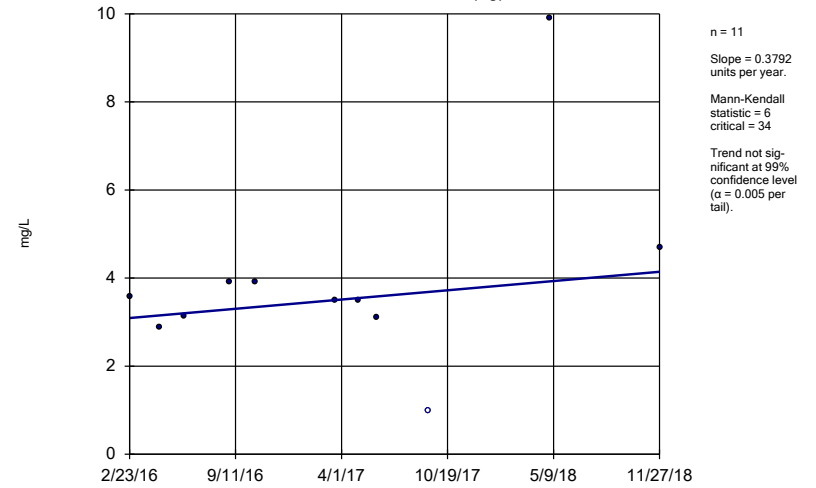
Constituent: Chloride Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-4 (Bg)



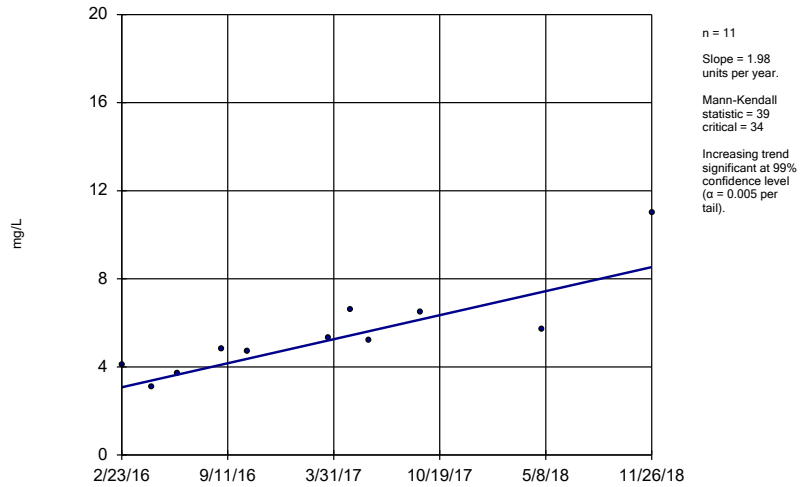
Constituent: Chloride Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-1 (Bg)



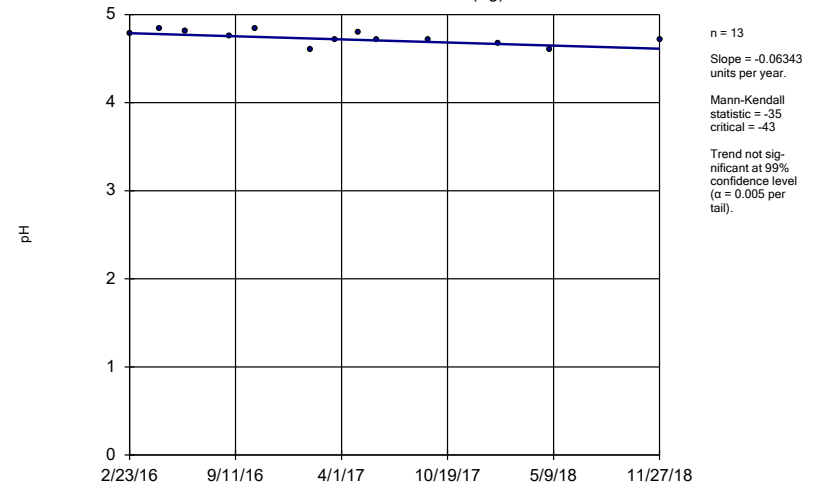
Constituent: Chloride Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-9



Constituent: Chloride Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

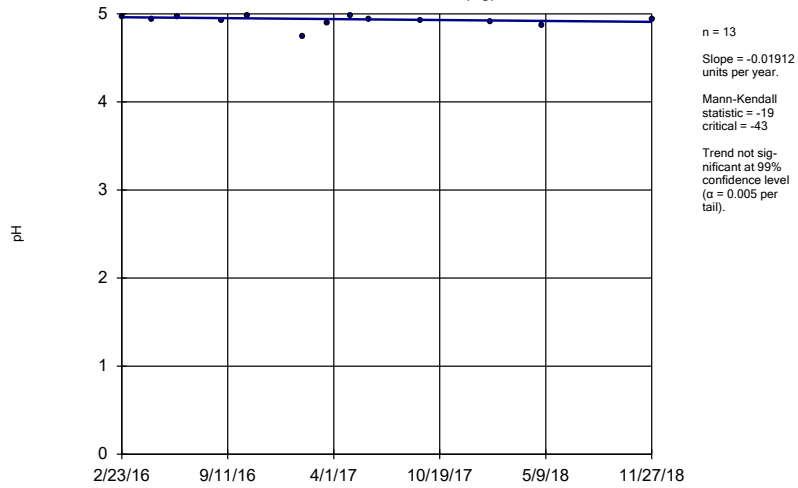
Sen's Slope Estimator
BY-GSA-MW-2 (Bg)



Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator

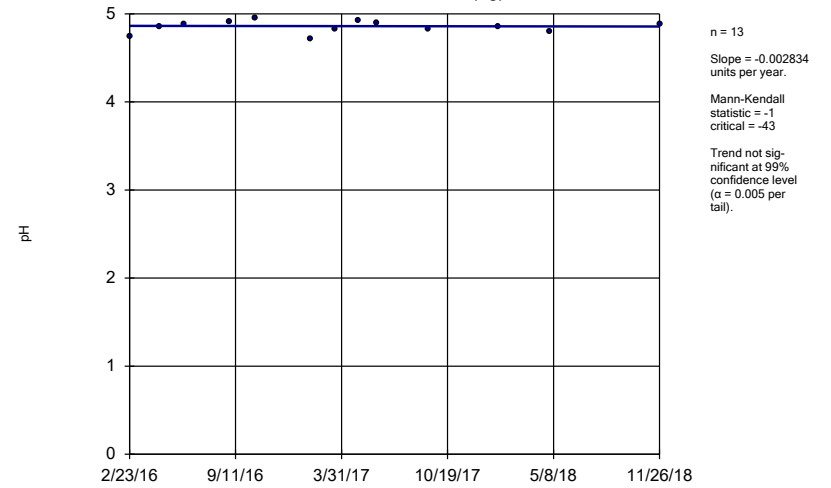
BY-GSA-MW-3 (Bg)



Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator

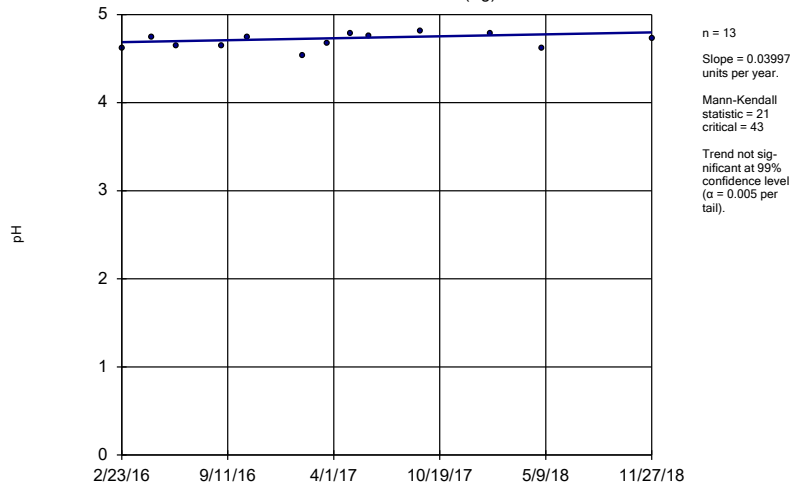
BY-GSA-MW-4 (Bg)



Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator

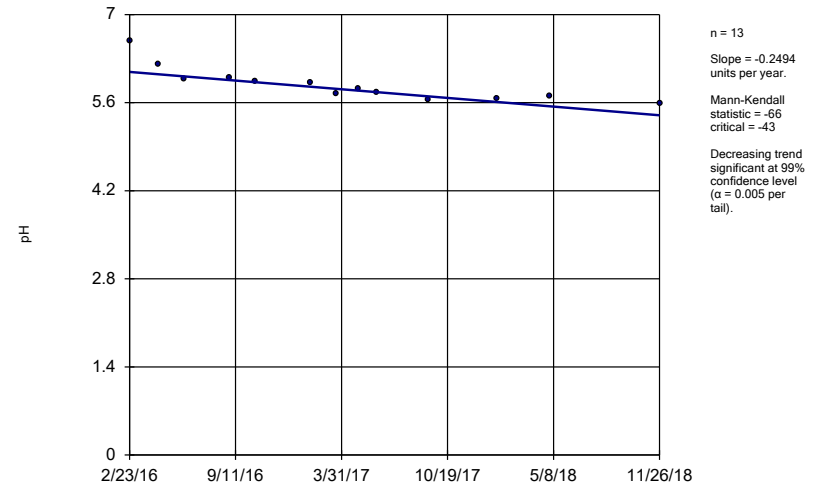
BY-GSA-MW-1 (Bg)



Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

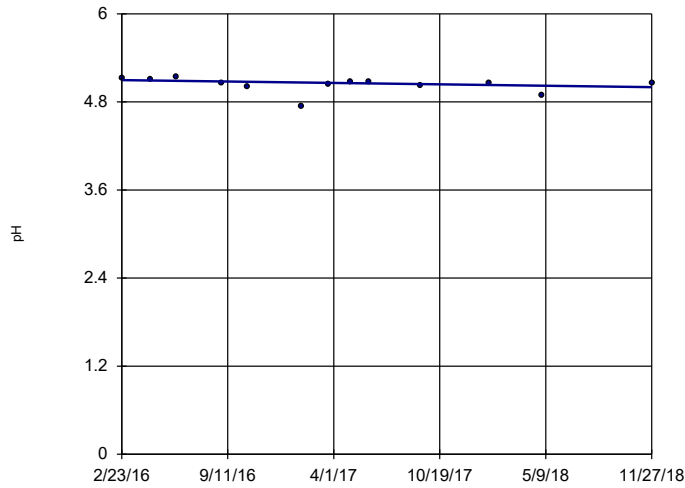
Sen's Slope Estimator

BY-GSA-MW-6



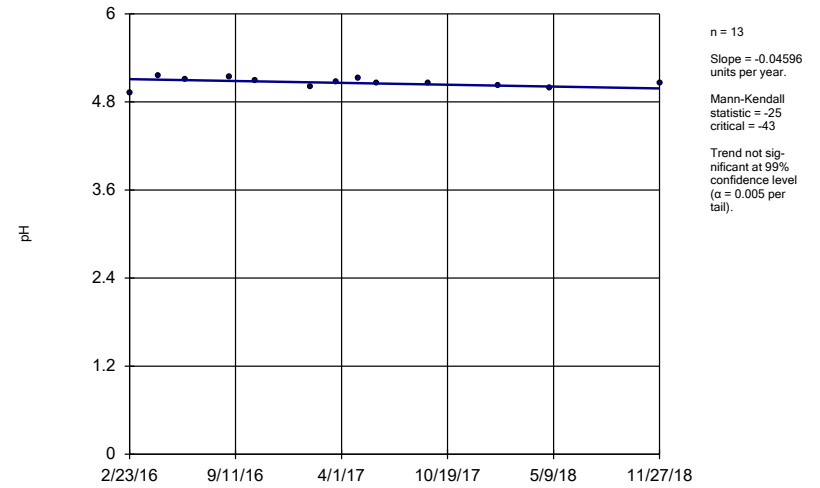
Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-7



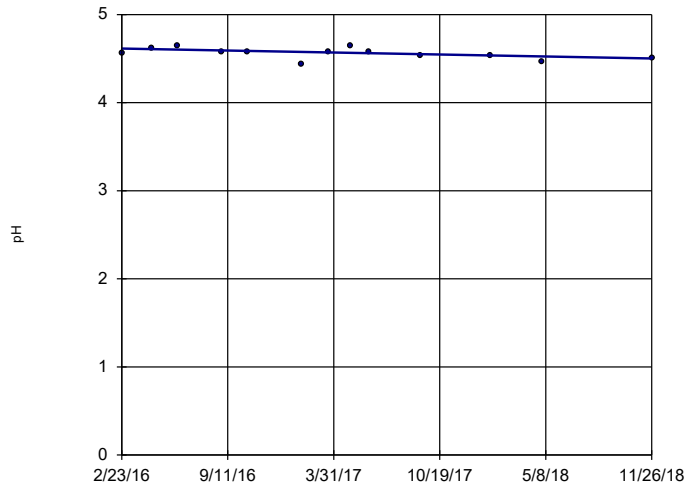
Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-8



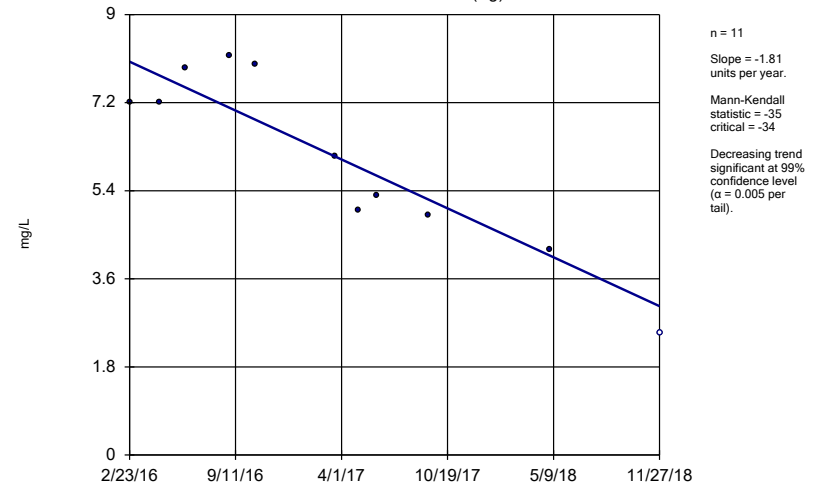
Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-9



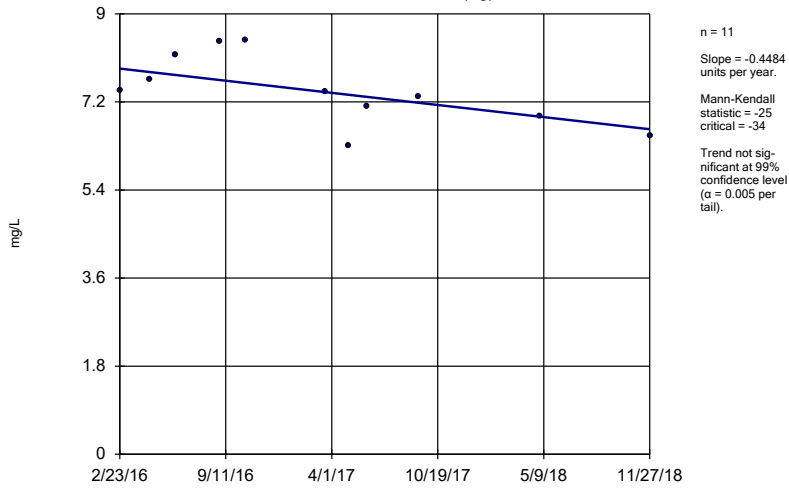
Constituent: pH Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator BY-GSA-MW-2 (Bg)



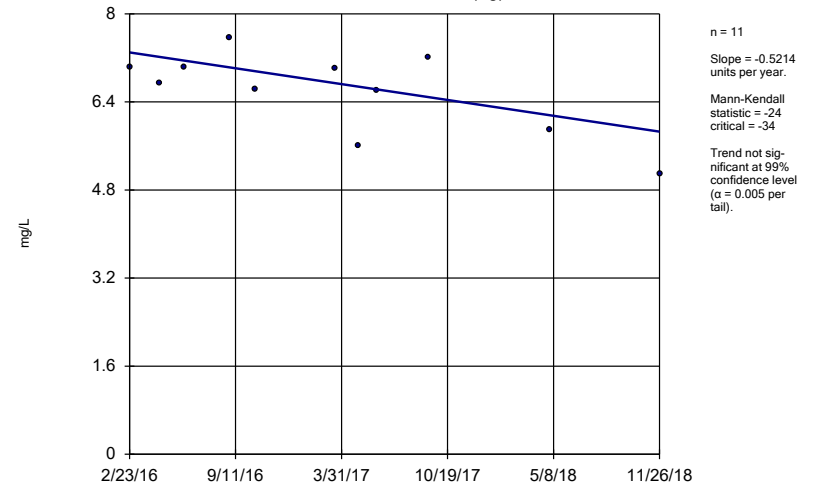
Constituent: Sulfate Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-3 (Bg)



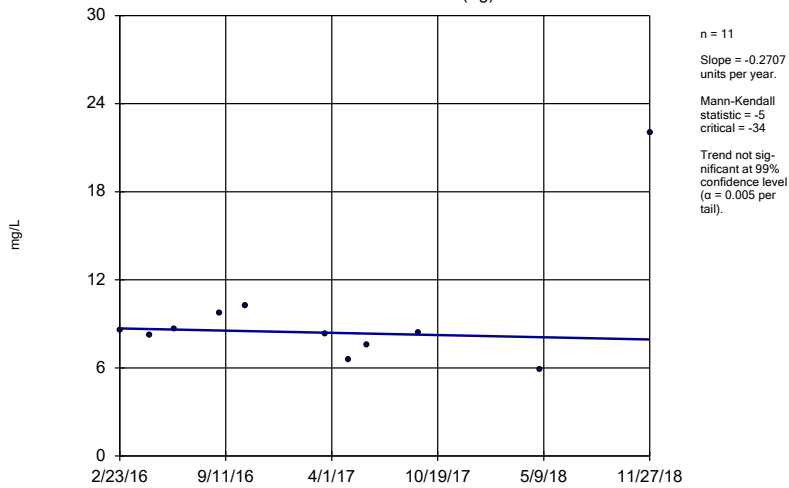
Constituent: Sulfate Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-4 (Bg)



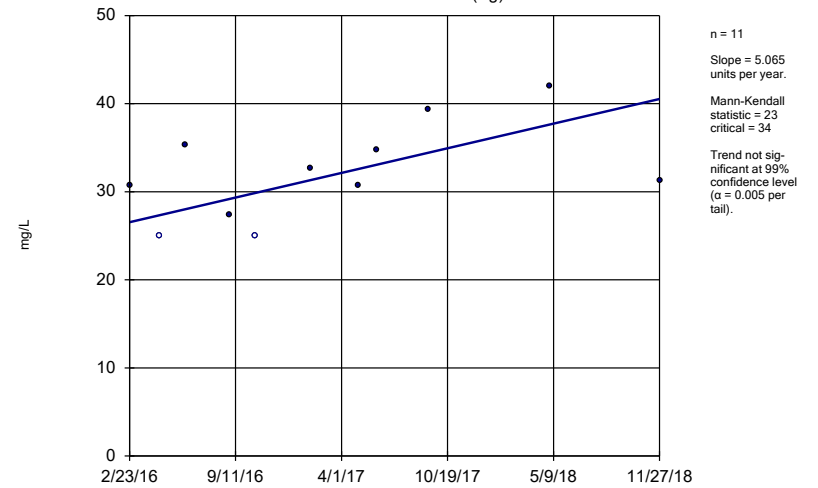
Constituent: Sulfate Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-1 (Bg)



Constituent: Sulfate Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

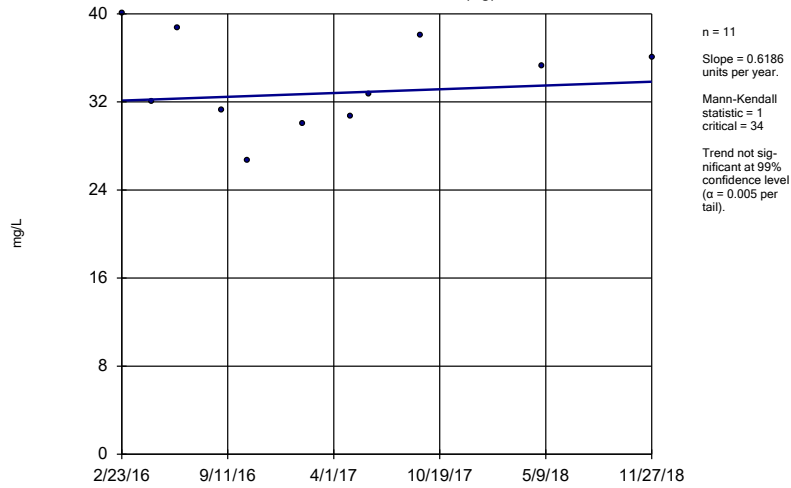
Sen's Slope Estimator
BY-GSA-MW-2 (Bg)



Constituent: TDS Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator

BY-GSA-MW-3 (Bg)

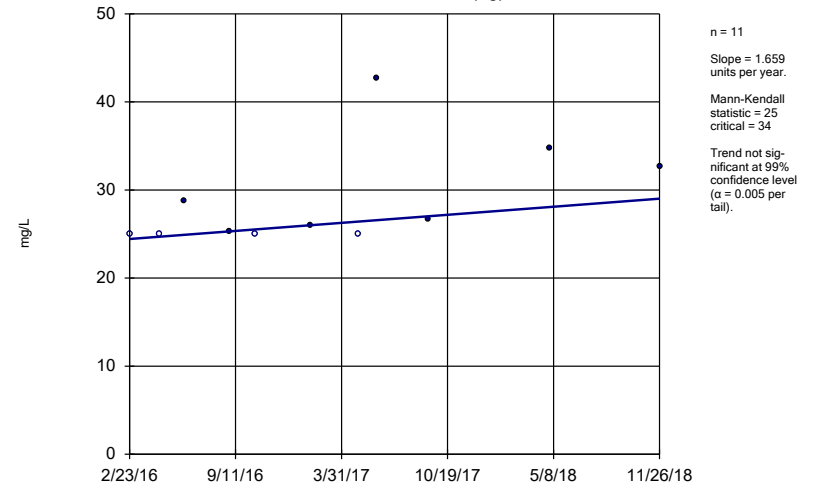


Constituent: TDS Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry GSA

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (Bg)

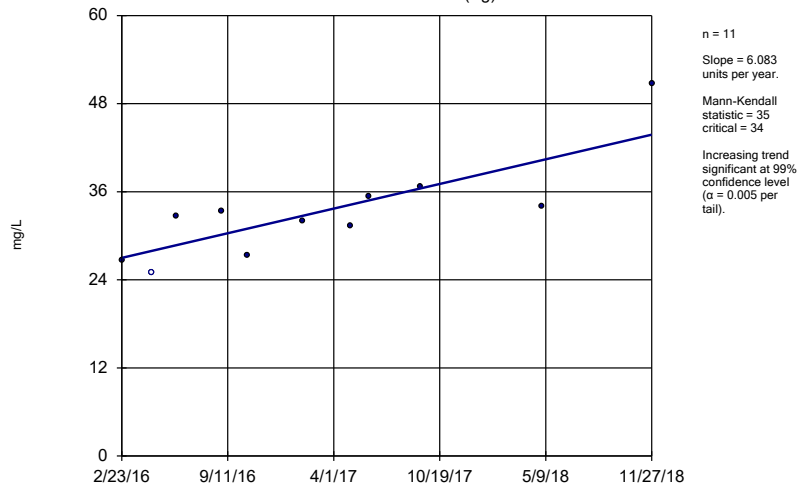


Constituent: TDS Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry GSA

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (Bg)

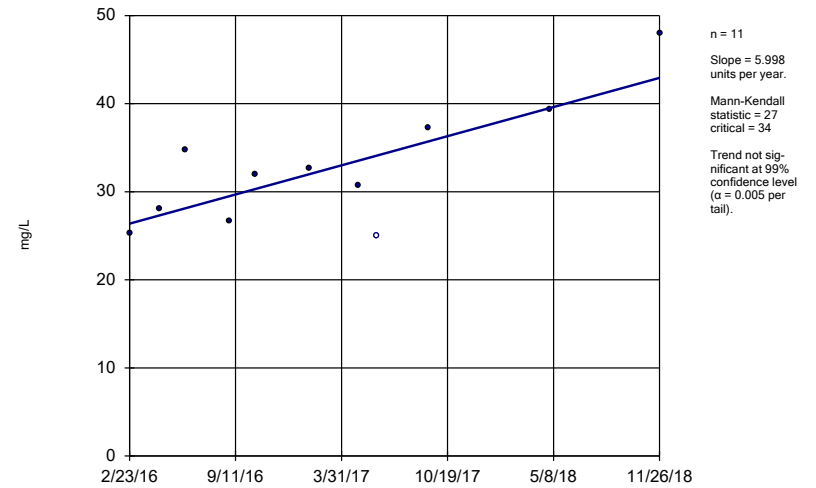


Constituent: TDS Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry GSA

Hollow symbols indicate censored values.

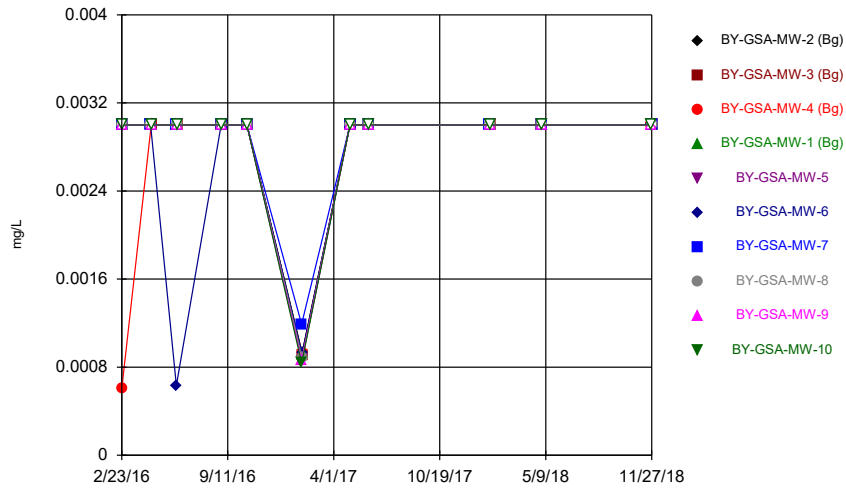
Sen's Slope Estimator

BY-GSA-MW-9



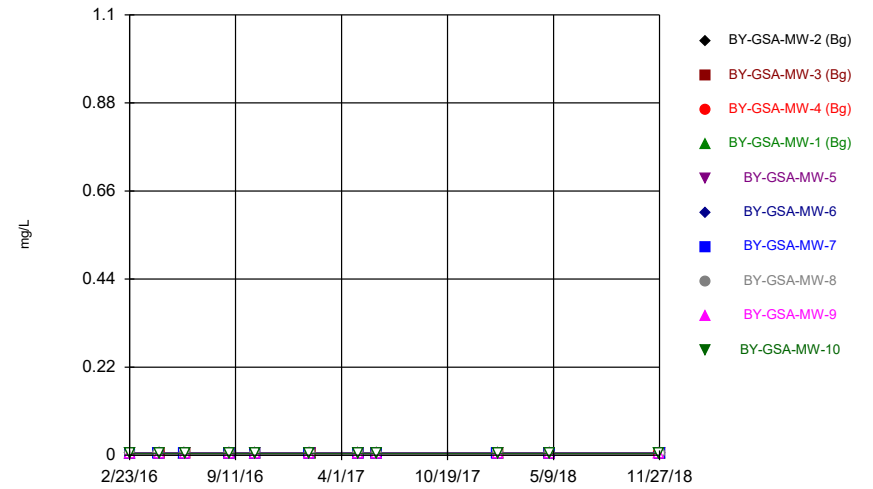
Constituent: TDS Analysis Run 1/9/2019 12:02 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry GSA

Time Series



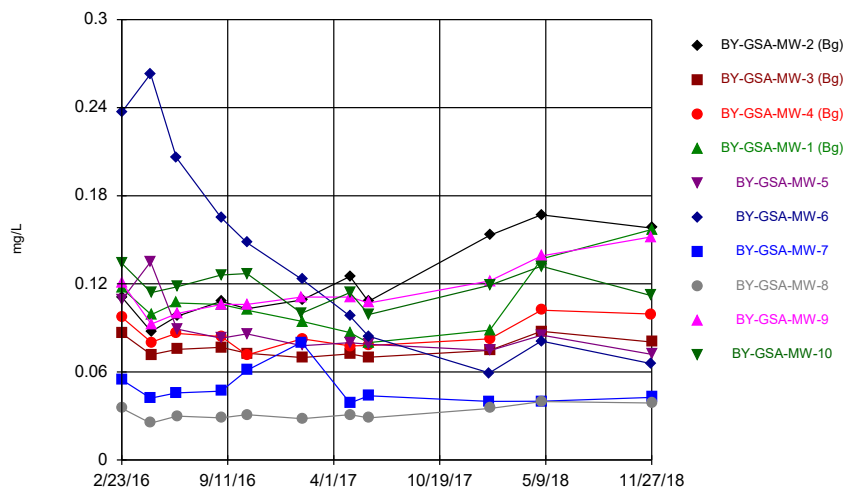
Constituent: Antimony Analysis Run 1/9/2019 12:04 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



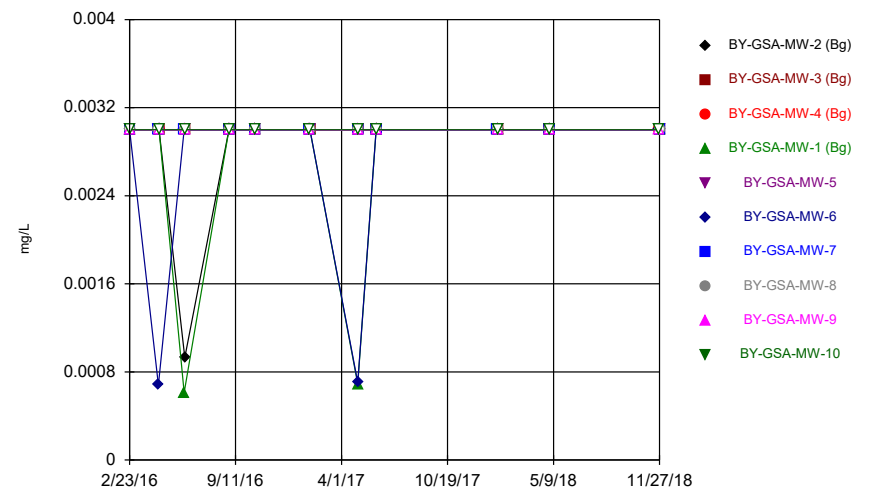
Constituent: Arsenic Analysis Run 1/9/2019 12:04 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



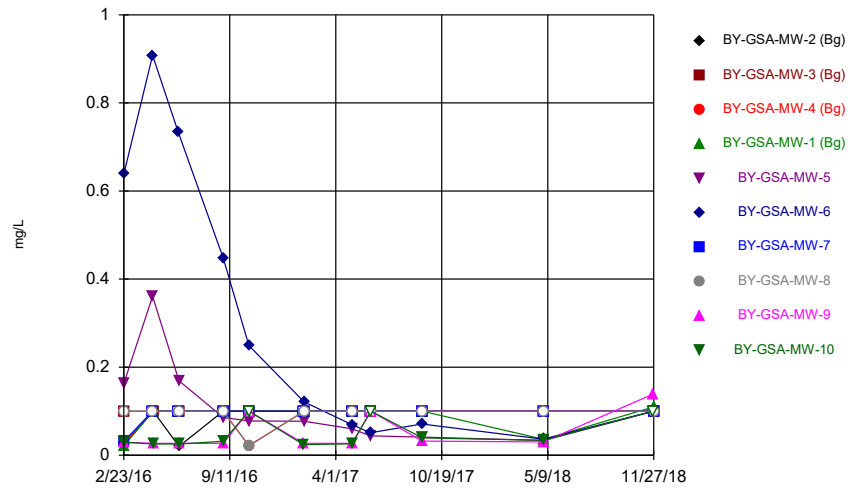
Constituent: Barium Analysis Run 1/9/2019 12:04 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



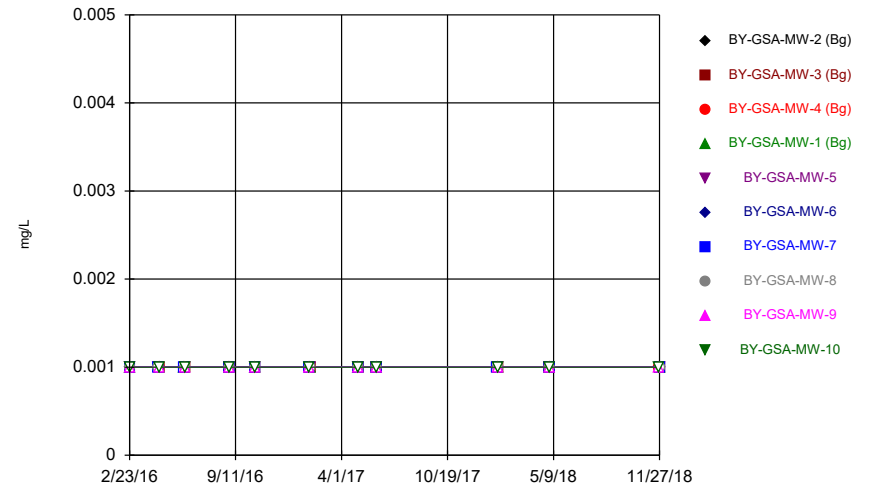
Constituent: Beryllium Analysis Run 1/9/2019 12:04 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



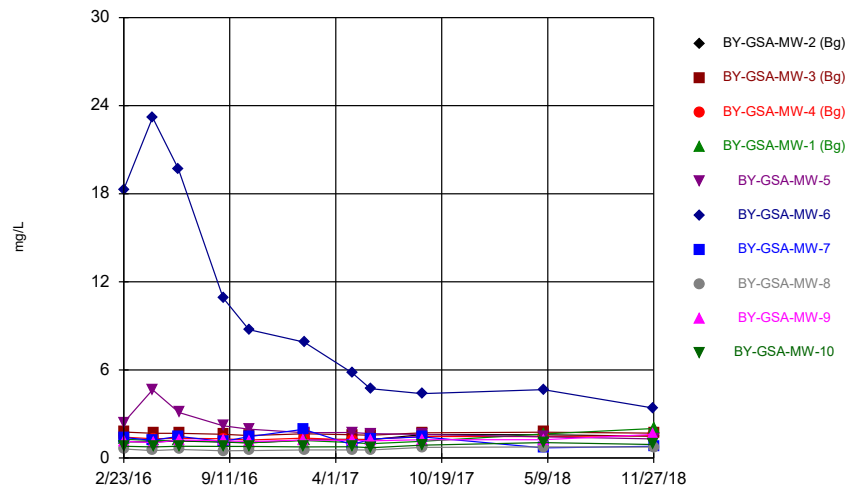
Constituent: Boron Analysis Run 1/9/2019 12:04 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



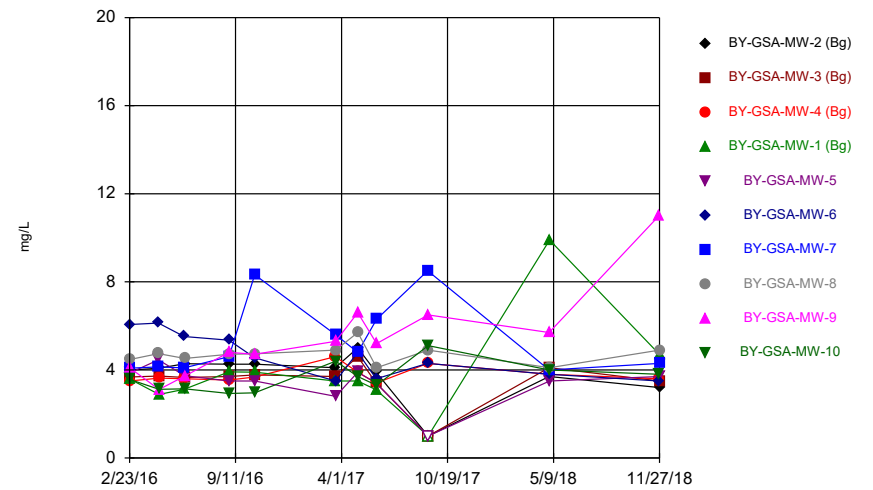
Constituent: Cadmium Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



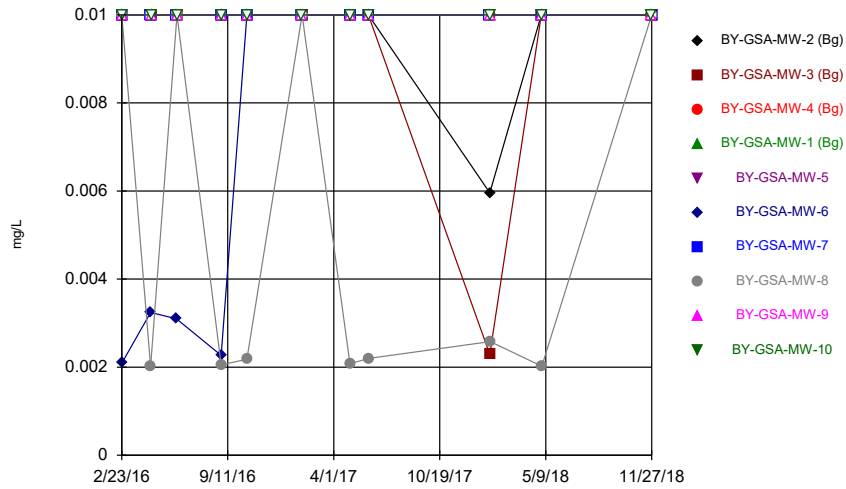
Constituent: Calcium Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



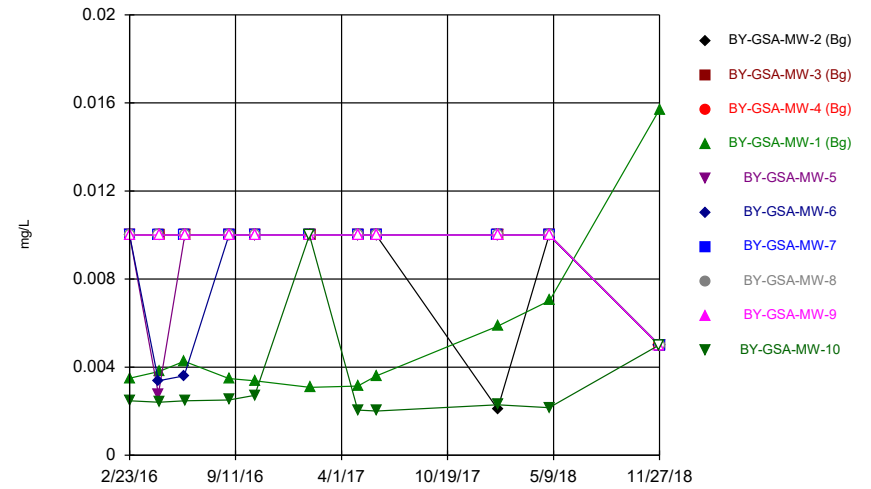
Constituent: Chloride Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



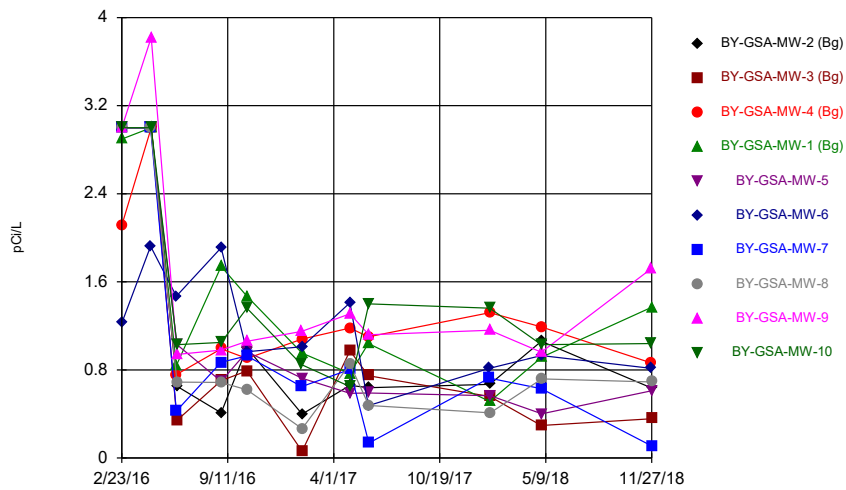
Constituent: Chromium Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



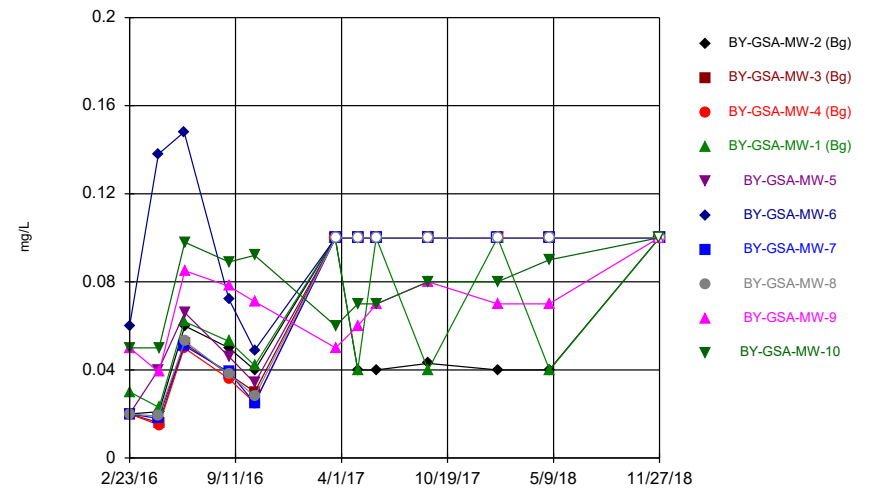
Constituent: Cobalt Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



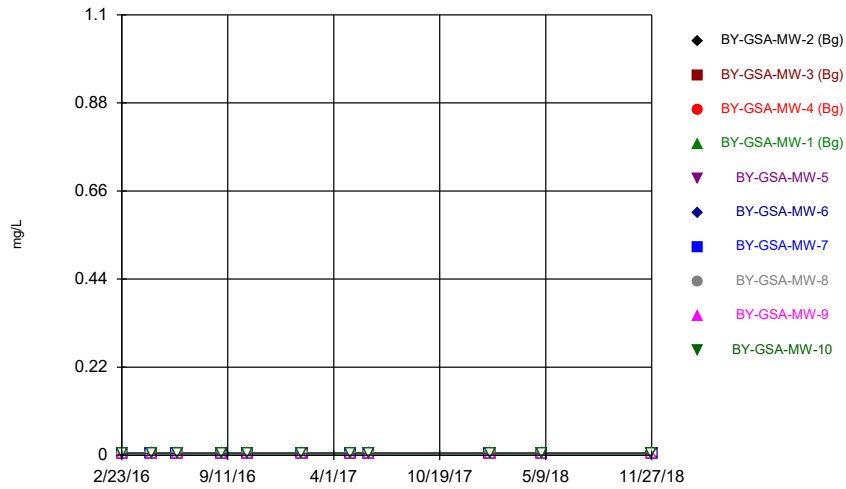
Constituent: Combined Radium 226 + 228 Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



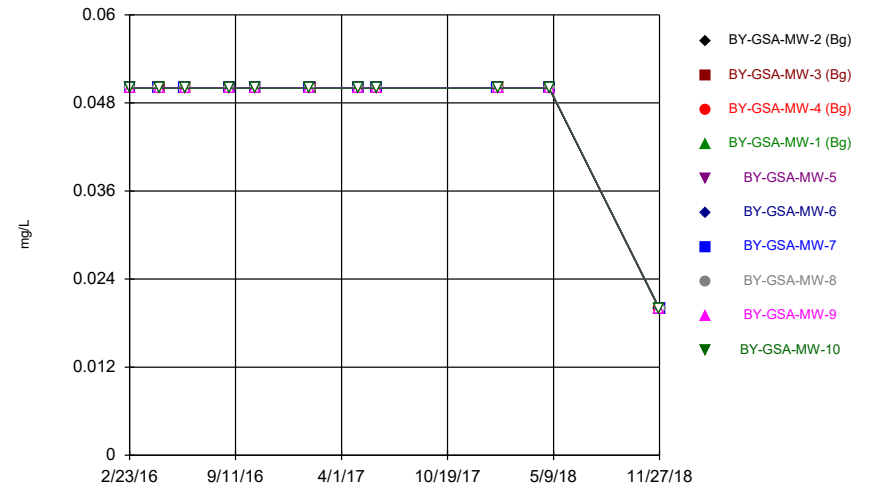
Constituent: Fluoride Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



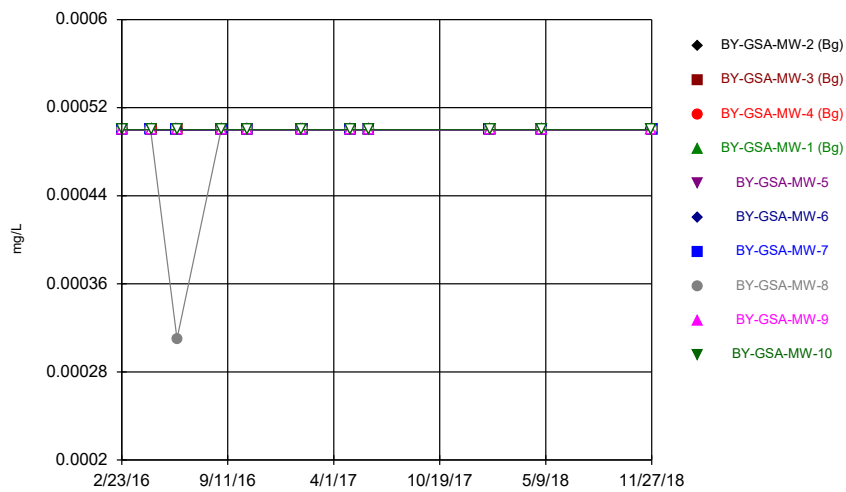
Constituent: Lead Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



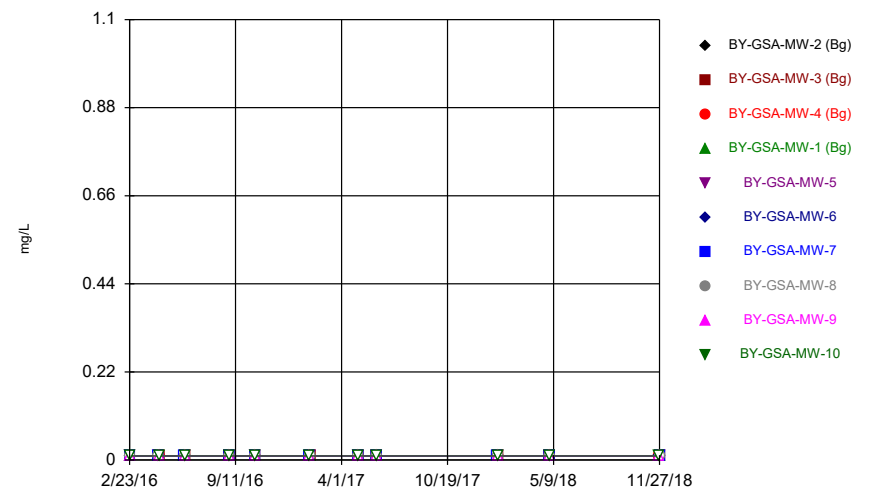
Constituent: Lithium Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



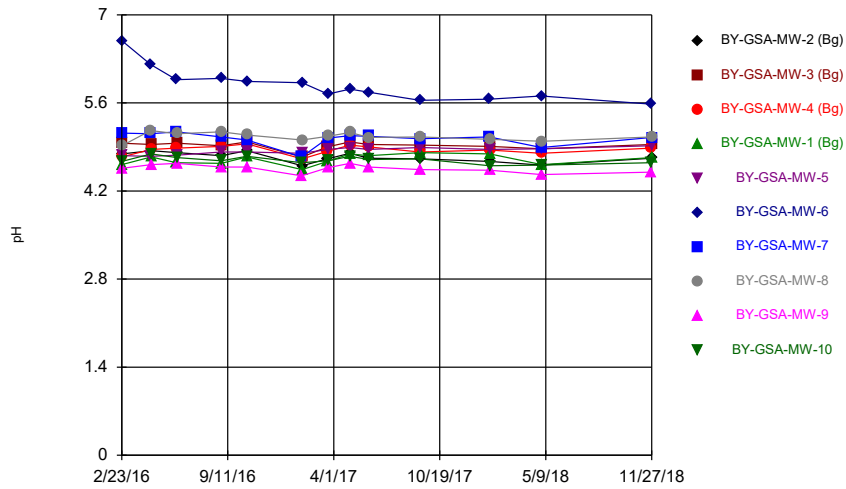
Constituent: Mercury Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



Constituent: Molybdenum Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

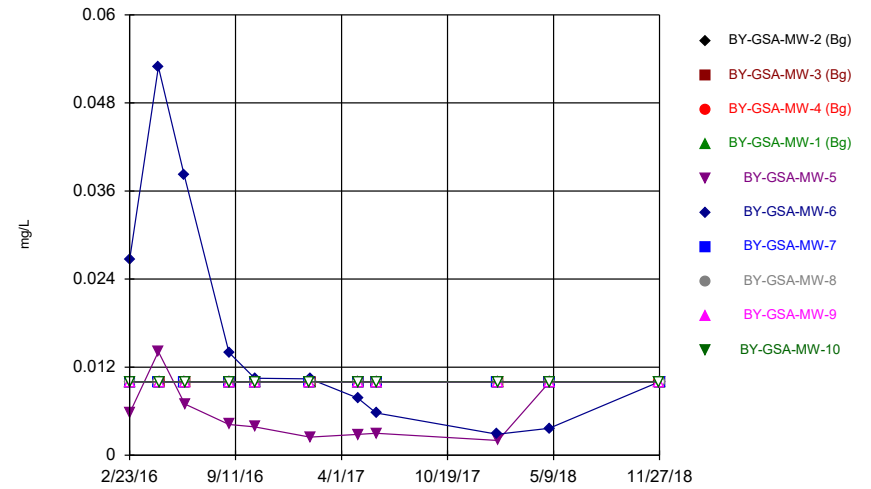
Time Series



Constituent: pH Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA

Hollow symbols indicate censored values.

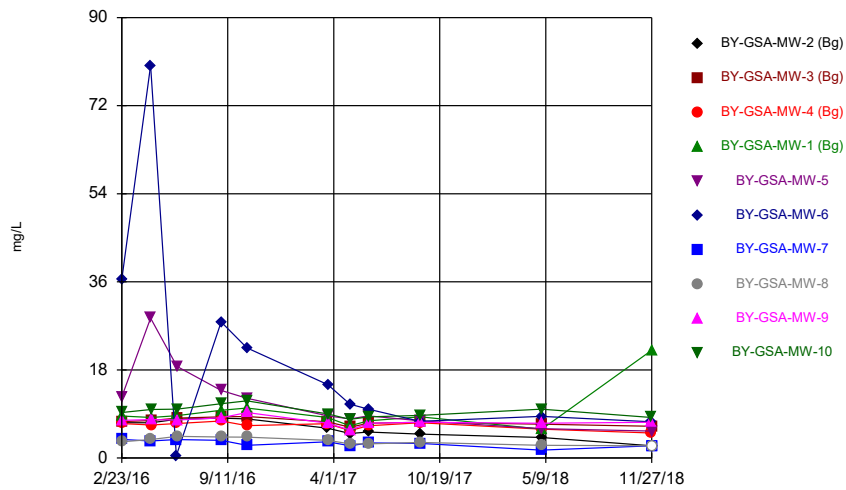
Time Series



Constituent: Selenium Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA

Hollow symbols indicate censored values.

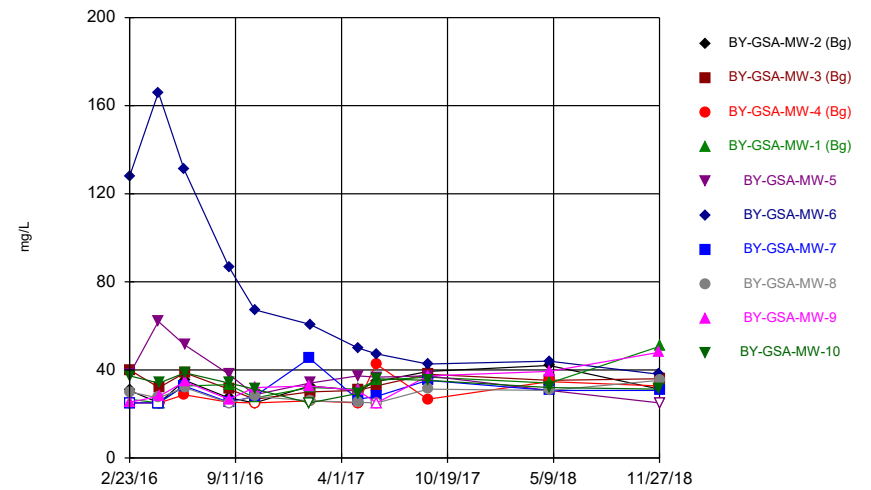
Time Series



Constituent: Sulfate Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA

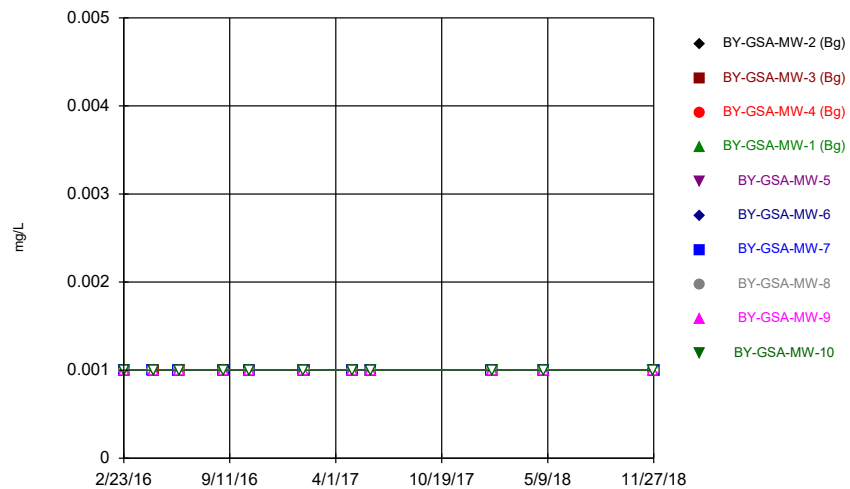
Hollow symbols indicate censored values.

Time Series



Constituent: TDS Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA

Time Series



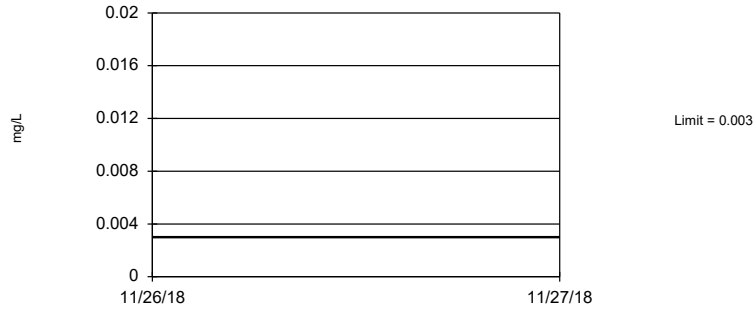
Constituent: Thallium Analysis Run 1/9/2019 12:05 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Upper Tolerance Limits - App IV

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/14/2019, 9:47 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	44	n/a	n/a	88.64	n/a	n/a	0.1047	NP Inter(NDs)
Arsenic (mg/L)	0.005	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Barium (mg/L)	0.167	44	n/a	n/a	0	n/a	n/a	0.1047	NP Inter(normal...
Beryllium (mg/L)	0.003	44	n/a	n/a	93.18	n/a	n/a	0.1047	NP Inter(NDs)
Boron (mg/L)	0.11	44	n/a	n/a	84.09	n/a	n/a	0.1047	NP Inter(NDs)
Cadmium (mg/L)	0.001	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Chromium (mg/L)	0.01	44	n/a	n/a	95.45	n/a	n/a	0.1047	NP Inter(NDs)
Cobalt (mg/L)	0.0157	44	n/a	n/a	72.73	n/a	n/a	0.1047	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	3	44	n/a	n/a	0	n/a	n/a	0.1047	NP Inter(normal...
Fluoride (mg/L)	0.1	48	n/a	n/a	41.67	n/a	n/a	0.08526	NP Inter(normal...
Lead (mg/L)	0.005	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Lithium (mg/L)	0.02	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Mercury (mg/L)	0.0005	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Molybdenum (mg/L)	0.01	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Selenium (mg/L)	0.01	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)
Thallium (mg/L)	0.001	44	n/a	n/a	100	n/a	n/a	0.1047	NP Inter(NDs)

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 44 background values. 88.64% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Antimony Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

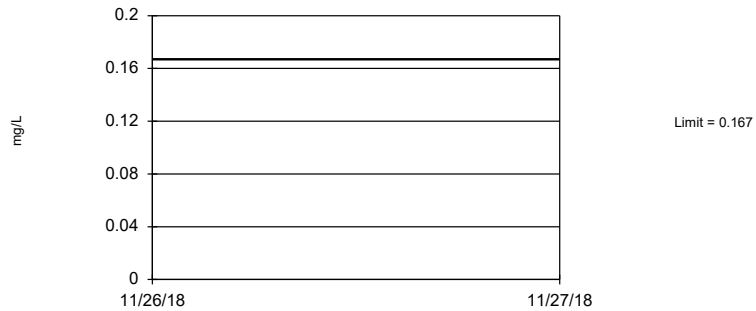
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Arsenic Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

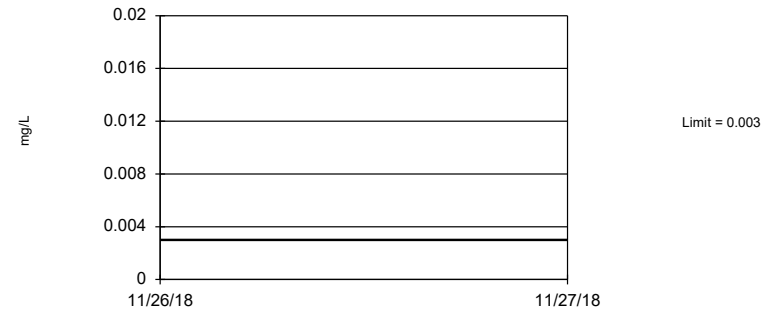
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Barium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

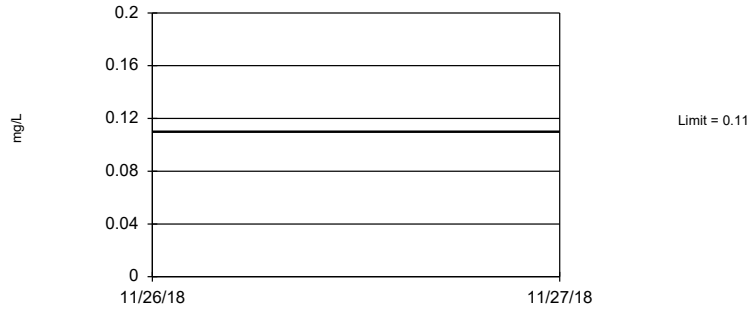
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 44 background values. 93.18% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Beryllium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

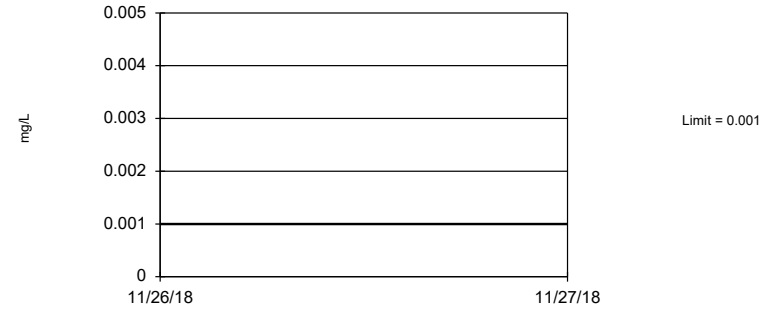
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 44 background values. 84.09% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Boron Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Cadmium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 44 background values. 95.45% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Chromium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 72.73% NDs. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Cobalt Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

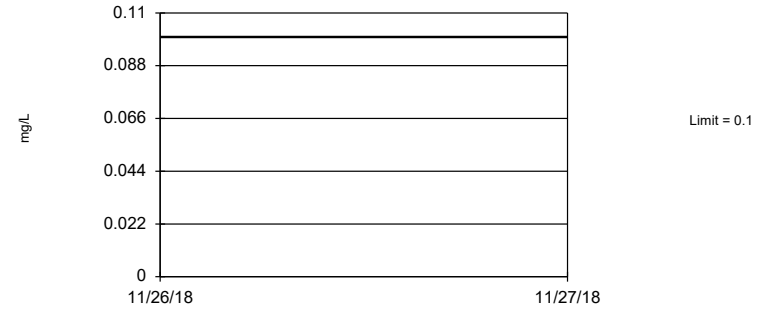
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Combined Radium 226 + 228 Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

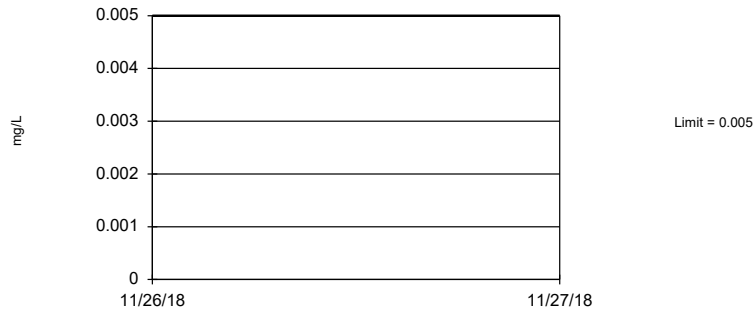
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 48 background values. 41.67% NDs, 90.82% coverage at alpha=0.01; 93.95% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.08526.

Constituent: Fluoride Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Lead Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

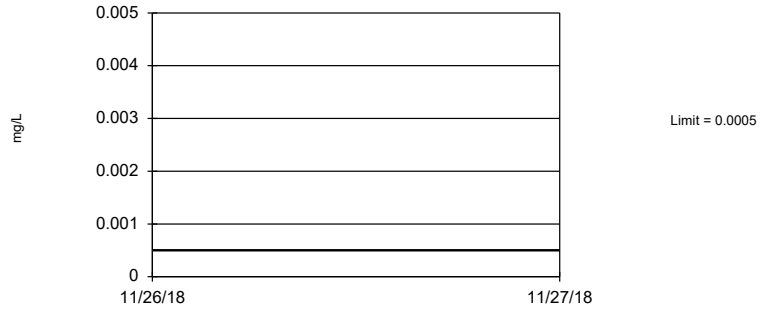
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Lithium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

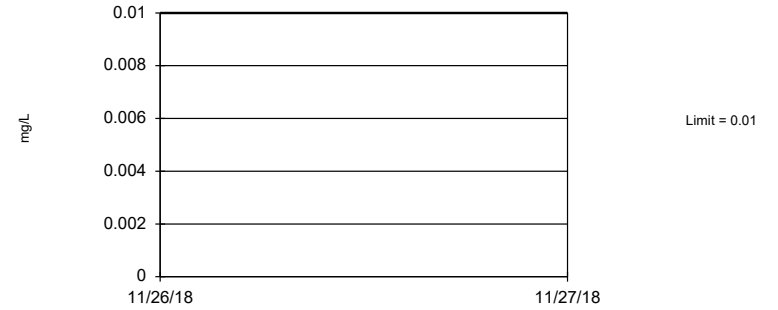
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Mercury Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Molybdenum Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Selenium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 90.04% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.24% coverage at alpha=0.5. Report alpha = 0.1047.

Constituent: Thallium Analysis Run 1/14/2019 9:46 AM View: UTL's - Appendix IV
Plant Barry Client: Southern Company Data: Barry GSA

Confidence Intervals - All Results (No Significant Results)

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/31/2019, 11:05 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-5	0.0015	0.000866	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-6	0.0015	0.000633	0.006	No	11	81.82	No	0.006	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-7	0.0015	0.00119	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-8	0.0015	0.000885	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-9	0.0015	0.000859	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-10	0.0015	0.000838	0.006	No	11	90.91	No	0.006	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-5	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-6	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-7	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-8	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Barium (mg/L)	BY-GSA-MW-5	0.109	0.072	2	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	BY-GSA-MW-6	0.1982	0.08007	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.0611	0.0388	2	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	BY-GSA-MW-8	0.03582	0.02805	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1297	0.1007	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-10	0.1274	0.1081	2	No	11	0	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-6	0.0015	0.000681	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-7	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-8	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-9	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-10	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Boron (mg/L)	BY-GSA-MW-5	0.1586	0.04176	4	No	11	9.091	x^(1/3)	0.01	Param.
Boron (mg/L)	BY-GSA-MW-6	0.5197	0.05841	4	No	11	9.091	sqrt(x)	0.01	Param.
Boron (mg/L)	BY-GSA-MW-7	0.05	0.0314	4	No	11	90.91	No	0.006	NP (NDs)
Boron (mg/L)	BY-GSA-MW-8	0.05	0.0207	4	No	11	90.91	No	0.006	NP (NDs)
Boron (mg/L)	BY-GSA-MW-9	0.05	0.0269	4	No	11	18.18	No	0.006	NP (normality)
Boron (mg/L)	BY-GSA-MW-10	0.05	0.0243	4	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Cadmium (mg/L)	BY-GSA-MW-5	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-6	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-5	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-6	0.005	0.00209	0.1	No	11	63.64	No	0.006	NP (normality)
Chromium (mg/L)	BY-GSA-MW-7	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-8	0.005	0.00201	0.1	No	11	36.36	No	0.006	NP (normality)
Chromium (mg/L)	BY-GSA-MW-9	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-10	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-5	0.005	0.0025	0.0157	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-6	0.005	0.0025	0.0157	No	11	81.82	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.0025	0.0157	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.0025	0.0157	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.0025	0.0157	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-GSA-MW-10	0.00272	0.00201	0.0157	No	11	18.18	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	3	0.401	5	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	1.561	0.7934	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.675	0.2859	5	No	11	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	3	0.266	5	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3	0.941	5	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	1.902	0.8588	5	No	11	0	ln(x)	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-5	0.066	0.034	4	No	12	58.33	No	0.01	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-6	0.138	0.049	4	No	12	58.33	No	0.01	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-7	0.051	0.02	4	No	12	58.33	No	0.01	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-8	0.053	0.02	4	No	12	58.33	No	0.01	NP (normality)
Fluoride (mg/L)	BY-GSA-MW-9	0.07571	0.05313	4	No	12	8.333	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.08705	0.05945	4	No	12	8.333	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-5	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-GSA-MW-6	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-GSA-MW-7	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-GSA-MW-8	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-GSA-MW-9	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-5	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-6	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)

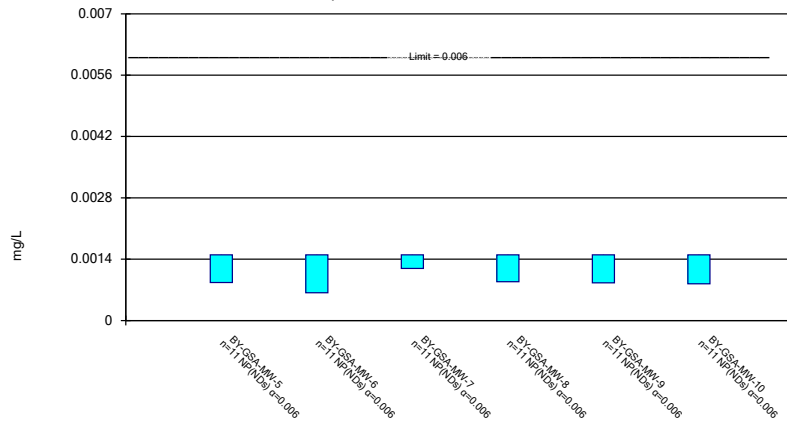
Confidence Intervals - All Results (No Significant Results)

Plant Barry Client: Southern Company Data: Barry GSA Printed 1/31/2019, 11:05 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BY-GSA-MW-7	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-8	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-9	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-10	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-5	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-7	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-8	0.00025	0.00025	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-9	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-10	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-6	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-7	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-9	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-10	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-5	0.00698	0.00201	0.05	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Selenium (mg/L)	BY-GSA-MW-6	0.02645	0.004421	0.05	No	11	9.091	sqrt(x)	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-5	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-6	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)

Non-Parametric Confidence Interval

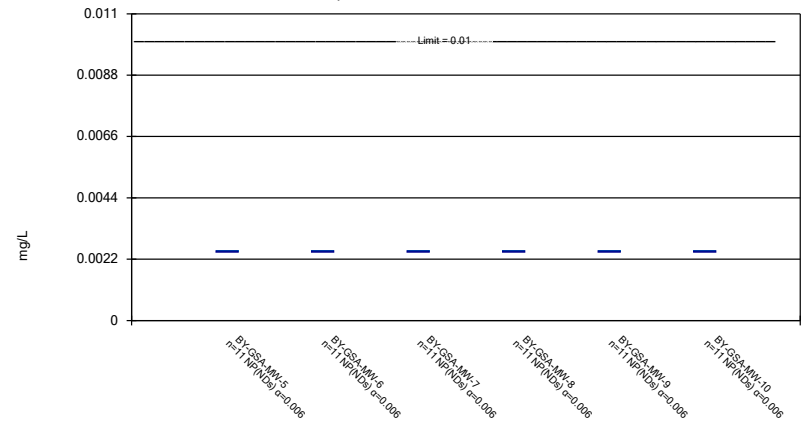
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

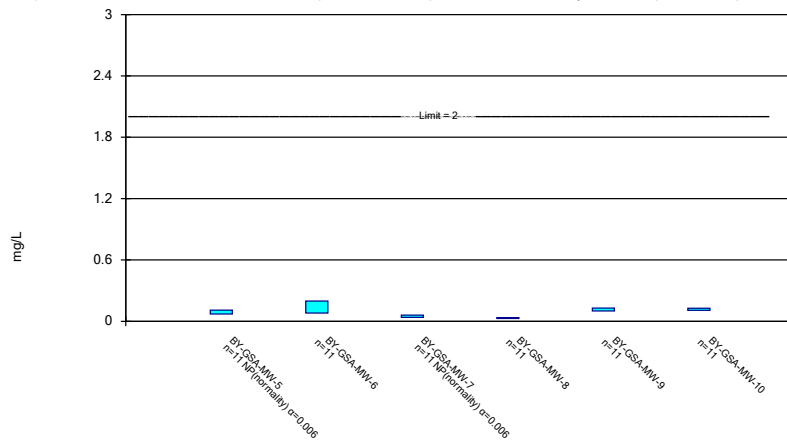
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

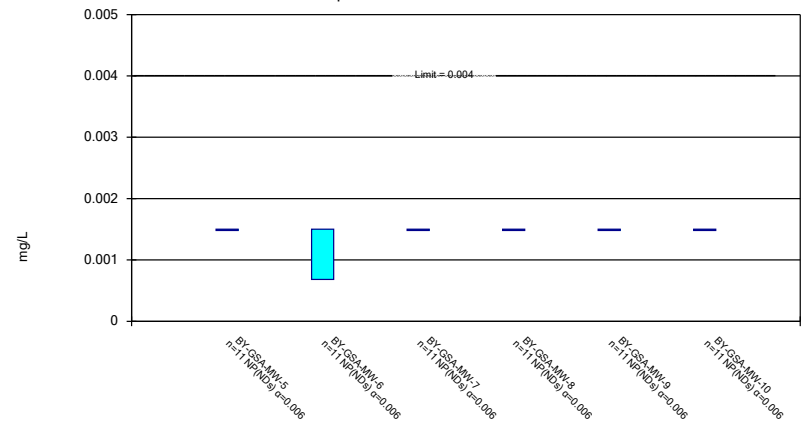
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

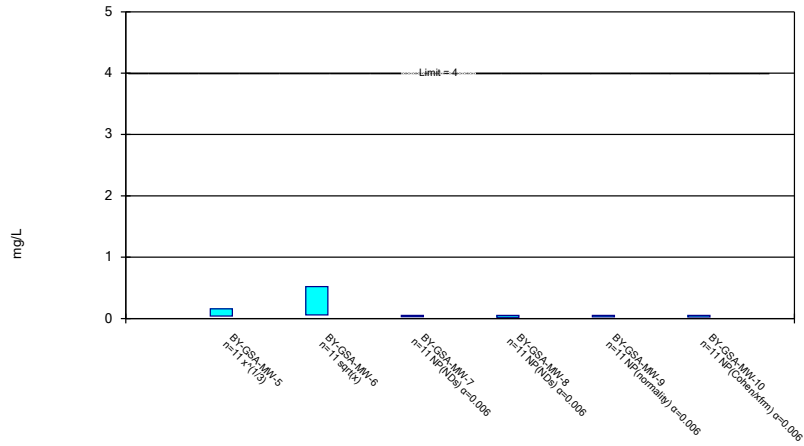
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

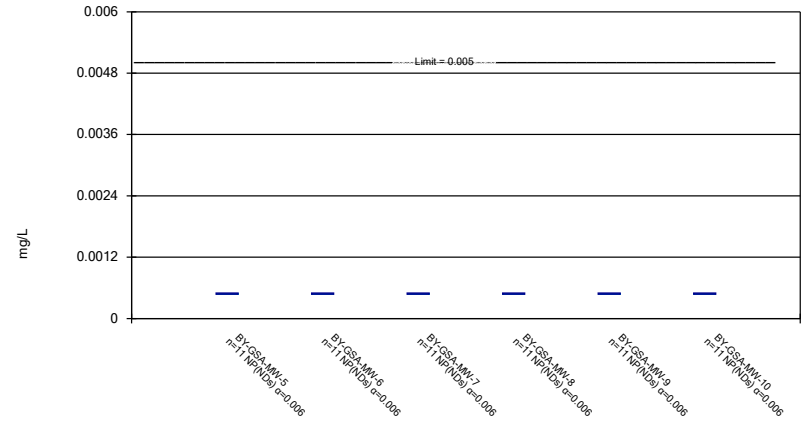
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Boron Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

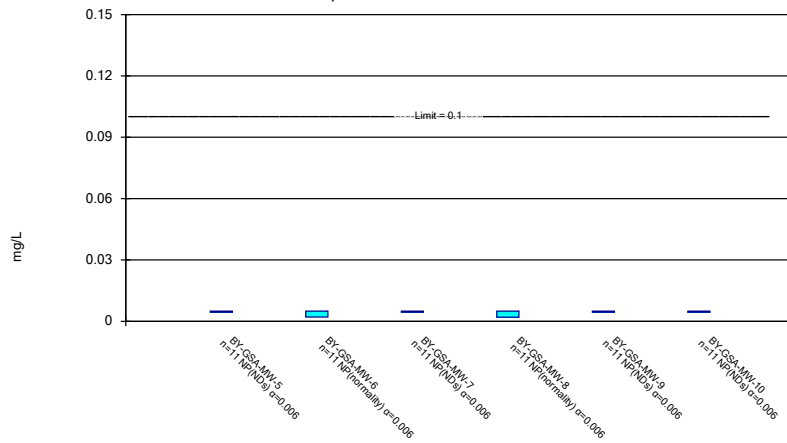
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

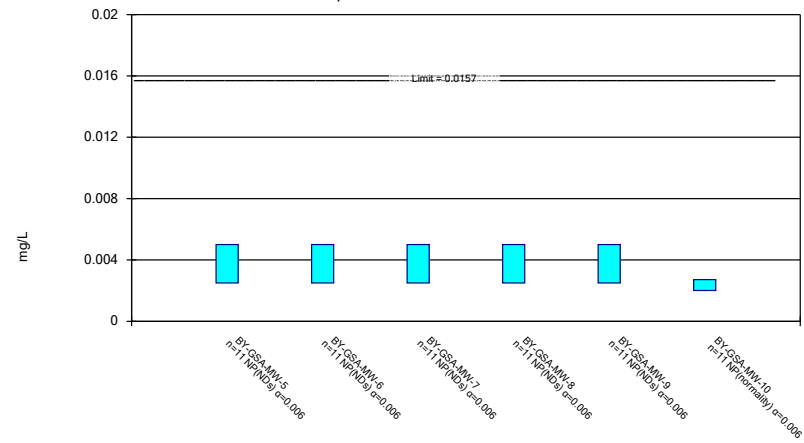
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

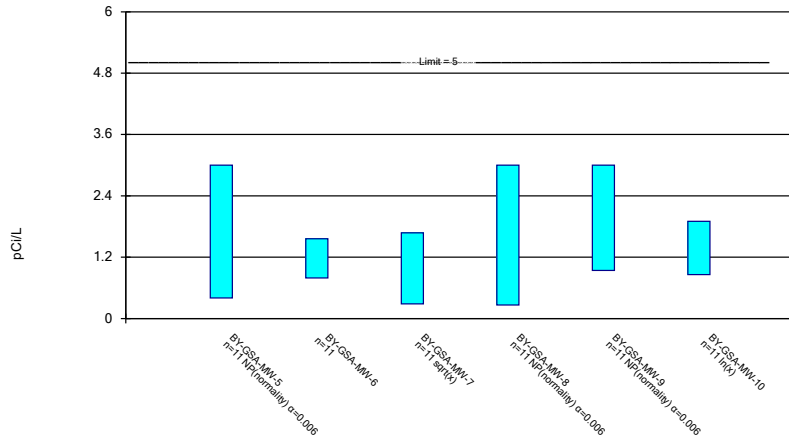
Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

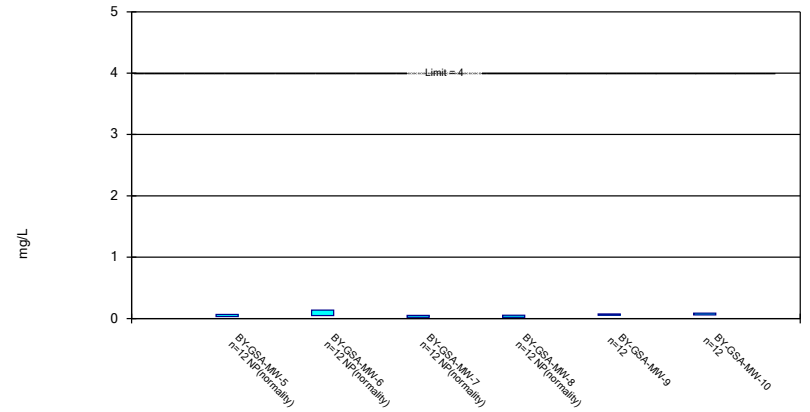
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

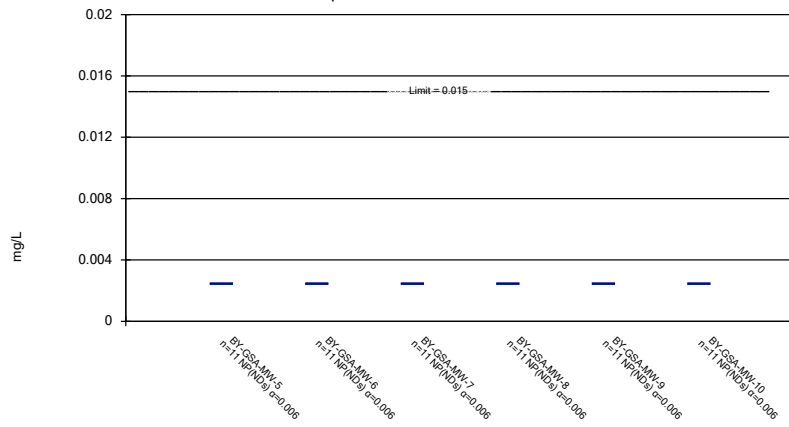
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

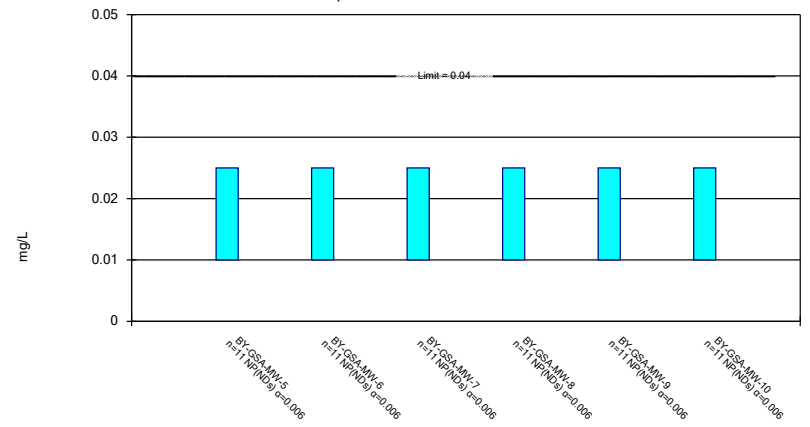
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

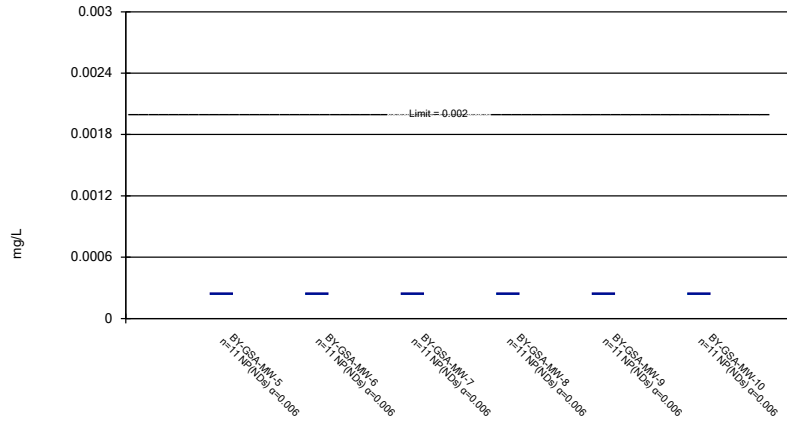
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



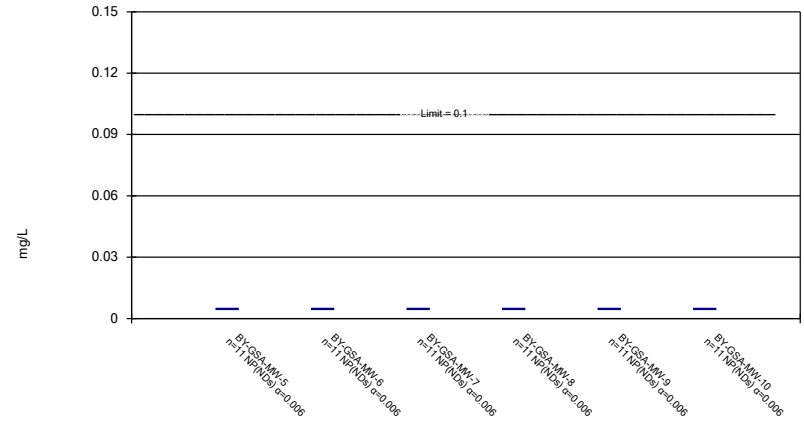
Constituent: Lithium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

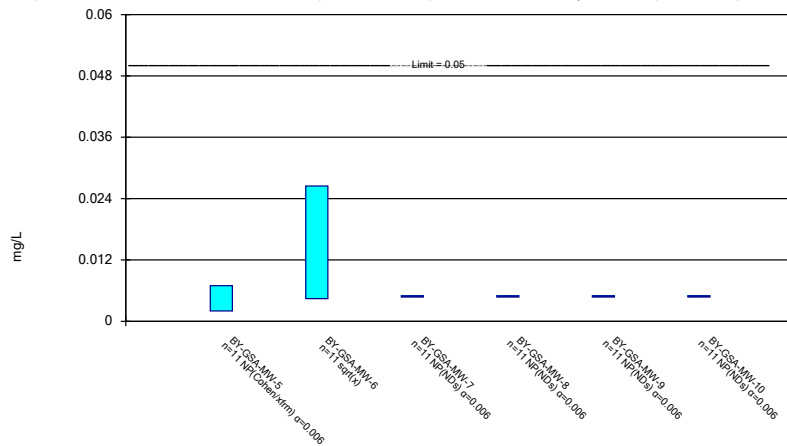
Non-Parametric Confidence Interval Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Parametric and Non-Parametric (NP) Confidence Interval

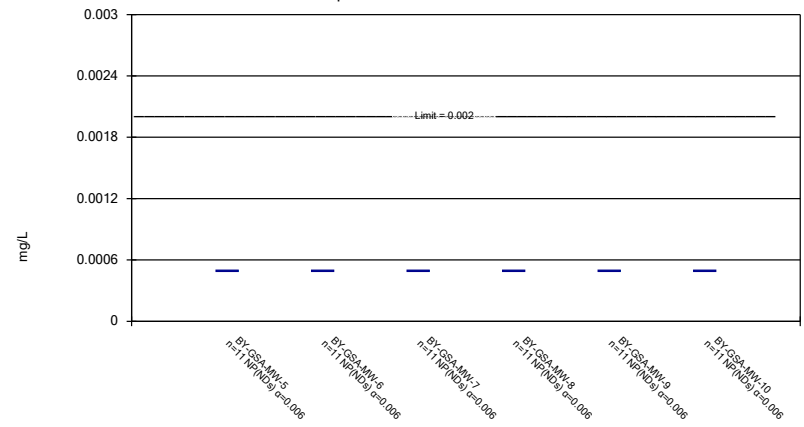
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/31/2019 11:04 AM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry GSA